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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                             Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                               Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OM protein - protein search, using sw model
                                                                                                                                                                                                                               Database :
                                                                              SPTREMBL_15:*

1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate
6: sp_manmal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
   10:
11:
12:
13:
14:
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                                                                                                                                                                                                                                                                                                                                                                                                                                             BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                              374700 seqs, 117207915 residues
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123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
sp_rodent:*
sp_virus:*
sp_vertebrate:*
sp_unclassified:*
                                                                                                                                                    sp_invertebrate: *
                                                                                                 sp_organelle:*
                                                             sp_plant:*
                                                                                                                                                                                                                                                                                                                                                                                  374700
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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18 19	17	16	15	14	13	12	11	10	Q	œ	7	თ	υ	4	ω	N	Д	Result No.
47 47	47	475	47.5	48	48	48	63	65	82	85	95	99	99	99	102	103	123	Score
38.2 38.2	38.2			39.0		39.0	51.2	52.8	66.7	69.1	77.2	80.5	80.5	80.5	82.9	83.7	100.0	Query Match
405 405	115	250	65	778	188	188	419	416	392	426	409	417	414	392	390	407	446	Query Match Length
10	v	4	6	12	4	4	13	13	13	13	13	13	13	13	13	13	4	Ba
Q41516 Q9SYY0	016031	095417	046611	Q84509	Q14901	Q16591	Q9PUT7	093433	Q9IBF0	Q9W611	Q91657	Q918A0	Q918A1	091030	042223	P79958	Q15881	ID
Q41516 triticum ae Q9syy0 triticum ae	harmothoe	095417 homo sapien		9	Q14901 homo sapien	Q16591 homo sapien	7	-	Q9ibf0 anguilla ja		7 xenopu	gallus g		Q91030 galius gali	trache	P79958 xenopus tae	Q15881 homo sapien	Description

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45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	26	25	24	23	22	21	20	
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35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	35.8	36.6	36.6	36.6	36.6	36.6	36.6	36.6	36.6	37.0	37.4	37.4	37.4	37.4	38.2	38.2	38.2	
472	459	455	449	395	393	343	292	292	225	2075	572	488	401	388	385	381	320	704	955	766	606	374	3381	830	815	
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Magnan arabidopara	Q905V4 dreissena p						Q9ZJK/ Helicopacie			Search promise	Dalosom Som Octob	Q9CYY3 caenormanur	solordonerd affecto	O35006 planoprocus	COMPTO STIME TO COLOR	Q41000 CIICION GC	CAREE THIS CONTRACTION				-	SCELLIGST				

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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      P79958
P79958;
01-MAY-1997 (TrEMBLrel. 03, C:
01-MAY-1997 (TrEMBLrel. 03, L:
01-CCT-2000 (TrEMBLrel. 15, L:
                                                                                                                              Spotila L.D., Hall S.E.;
Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases
EMBL; AF019779; AAB70832.1; -.
HSSP; P08046; IAAY.
                           INTERPRO; IPR000822; -.
INTERPRO; IPR000976; -.
PFAM; PF00096; zf-C2H2; 4.
PFAM; PF02165; WT1; 2.
                                                                                                                                                                                                                                                                                                                                 Trachemys scripta (Red-eared slider turtle).
Eukaryota: Metazoa: Chordata: Craniata: Vertebrata: Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JAN-1998 (TrEMBLrel. 01-JAN-1998 (TrEMBLrel. 01-OCT-2000 (TrEMBLrel.
PRINTS; PR00048; ZINCFINGER
                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                             NCBI_TaxID=34903;
                                                                                                                                                                                                                                                                                                                           restudines;
                                                                                                                                                                                                                                                                                                                                                                                                                              WILMS TUMOR 1 PROTEIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PRO0048; ZINCFINGER.
PROSITE; PS00028; ZINCFINGER_C2H2; 4.
Zinc-finger; Metal-binding; DNA-bindin
SEQUENCE 407 AA; 45983 MW; E2554C6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Semba K., Saito-Ueno R., Takayama G., Kondo M.; "CDNA cloning and its pronephros-specific expression of the Wilms'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Xenopus laevis (African clawed frog).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tumor suppressor gene, WT1, from Xenopus laevis."; Gene 175:167-172(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=97074667; PubMed=8917094;
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                                                                                                                                                                                                                                                                                                                   Cryptodira;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
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78.3%;
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15,
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Last sequence update)
Last annotation update)
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W; E2554C658005870C CRC64;
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Last sequence update)
Last annotation update)
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Pred. No. 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
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2.5e-08;
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RESULT
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Q91030
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local :
                                                                                                                    WT1(-KTS) PROTEIN.
WT1(-KTS).
Gallus gallus (Chicken).
                                                  Archosauria; Aves; Neognathae; Gallus.
                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasiani
                                                                                                                                                                                           Q918A1;
01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q91030;
Q91030;
01-NOV-1996
01-NOV-1996
01-OCT-2000
                       NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                        Q918A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRINTS; PR00049; WILMSTUMOUR.
PROSITE; PS00028; ZINC_FINGER_C2H2; 3.
Zinc-finger; Metal-binding; DNA-binding.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INTERPRO; IPR000976; -. PFAM; PF00096; zf-C2H2; 3. PFAM; PF02165; WT1; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     vertebrates.";

Oncogene 11:718-1792(1995).

EMBL; X85731; CAA59736.1; -.

HSSP; P08046; 1A1G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE-96068905; PubMed-7478606;
Kent J., Corlat A.M., Sharpe P.T., Hastie N., Van Heyningen Northe evolution of WT1 sequence and expression pattern in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-NOV-1996 (TrEMBLrel. 01, Created)
01-NOV-1996 (TrEMBLrel. 01, Last sequen)
01-CCT-2000 (TrEMBLrel. 15, Last annotated)
CHICK WILM'S TUMOUR PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gallus gallus (Chicken).
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Zinc-finger; Metal-binding; DNA-binding.
SEQUENCE 390 AA; 43620 MW; 1C9987435BE927C2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                    100
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity 78.
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                                                                                                                                                                                                                                                                                                        PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     43869 MW; 761F01D350E4EDBF CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   80.5%;
78.3%;
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78.3%;
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Last sequence update)
Last annotation update)
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Pred. No. 3.4e-08;
                                                                                                                                                                                                                                                                                                        PRT;
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                                                                                                                                                                                                                                                                                                  414 AA
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                                                               Phasianinae;
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RESULT
Q918A0
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gallus gallus (Chicken).
Gallus gallus (Chicken).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eukaryota; Metazoa; Chordata; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WT1(+KTS) PROTEIN WT1(+KTS).
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01-OCT-2000 (TrEMBLrel. 15, Last seq
01-OCT-2000 (TrEMBLrel. 15, Last ann
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                                                                                                                                                                                                                                                                                                                                                                                                                                         "Chicken counterpart of Wilms' tumor suppressor gene 1."; Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AB033634; BAA94794.1; -.
SEQUENCE 417 AA; 46957 MW; 47BBF7F6448E7F6C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q918A0;
                                                                                                                                                                                   Q91657 PRELIMINARY; PRT; 409 AA.
Q91657;
Q1-107-1996 (TrEMBLrel. 01, Created)
Q1-NOV-1996 (TrEMBLrel. 01, Last sequence update)
Q1-OCT-2000 (TrEMBLrel. 15, Last annotation update)
WILMS' TUMOR SUPPRESSOR (WT1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kudo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TISSUE-OVARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100
                                                                SEQUENCE FROM N.A. Carroll T.J., Vize P.D.;
                                                                                                                    Amphibia; Batrachia; Anura; Mesobatrachia; Xenopodinae; Xenopus.
                                                                                                                                            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                          Xenopus laevis (African clawed frog)
                                                                                                      NCBI_TaxID=8355;
 MEDLINE=96068905; PubMed=7478606
                TISSUE-MESONEPHROS
                             SEQUENCE OF 289-370 FROM N.A.
                                                     Submitted (JAN-1996)
                                                                                                                                                                                                                                                                                                                      100
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                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity
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PSQPPSGQARMFPQRPYLPNCLE 122
                                                                                                                                                                                                                                                                                                                   ||| ||||||| ||||:|||
|PSQPPSGQARMFPQRPYLPNCLE 122
                                                                                                                                                                                                                                                                                                                                                                         18;
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                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                        80.5%;
78.3%;
                                                      to the EMBL/GenBank/DDBJ databases.
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Last annotation update)
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                             1.
                                                                                                                                                                                                                                                                                                                                                                                        Score 99; DB 13;
Pred. No. 1.1e-07;
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                                                                                                                                     Pipoidea; Pipidae;
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Q9IBF0 Q9IBF0; Q1-OCT-2000 (01-OCT-2000 (01-OCT-2000 (WILMS' TUMOR

) (TrEMBLrel.
) (TrEMBLrel.
)R PROTEIN.

PRELIMINARY;

Created)

392 AA

15, 15,

Last sequence update)
Last annotation update)

Q9IBF0

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Q9W611
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RESULT
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Best Local S
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                                                                                                                                                       INTERPRO; IPRUUU022,
INTERPRO; IPRU00976; -.
INTERPRO, IPRU00976; zf-C2H2; 4.
PFAM; PF00096; zf-C2H2; 4.
PRINTS; PR00049; WILMSTUMOUR.
PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
Zinc_finger; Metal-binding; DNA-binding.
Zinc_finger; Metal-binding; DNA-binding.
426 AA; 47590 MW; 46A0B158A9;
                                                                                                                        Query Match
                                                                                                Matches
                                                                                                              Best
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INTERPRO; IPR000976; ...
PFAM; PF00096; zf-C2H2; 4...
PFAM; PF02165; WT1; 3...
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oncogene 11:1781-1792(1995).
EMBL; U42011; AAB53152.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Kent J., Coriat A.M., Sharpe P.T., Hastle N., van neyningen 
"The evolution of WTI sequence and expression pattern in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PRO0048; ZINCFINGER.
PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
Zinc-finger; Metal-binding; DNA-binding.
SEQUENCE 409 AA; 46186 MW; 2217FC046
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL; X85733; CAA59738.1; -. HSSP; P08046; 1AAY.
                                                                                                                                                                                                                                                                             Nakayama Y., Yamamoto T., Matsuda Y., Abe S.I.; "Cloning of cDNA for newt WT1 and the differential expression during spermatogenesis of the Japanese newt, Cynops pyrrhogaster."; Submitted (MAY-1998) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vertebrates."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1999
01-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q9W611
                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata;
Amphibia; Batrachia; Caudata;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Cynops pyrrhogaster (Japanese common newt).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9W611;
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                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=8330;
                                                                                                                                                                                                                                                                    HSSP; P08046; 1AAY
                                         107 PSQPPAAQVRMFSNGPYLPNCLE 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97 PSQATTGQARMFSNAPYLSNCLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
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                                                                                                              Local Similarity
                                                                    1 PSQASSGQARMFPNAPYLPSCLE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17;
                                                                                                  15;
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(TrEMBLrel. 12, Last sequence update)
(TrEMBLrel. 15, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRELIMINARY;
                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     77.2%;
73.9%;
                                                                                                               69.1%;
65.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           score 95; DB 13; 1
pred. No. 4.5e-07;
4; Mismatches 2;
                                                                                                  2;
                                                                                                                 Score 85; DB 13;
Pred. No. 1.7e-05;
                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Euteleostomi; Salamandroidea; Salamandridae; Cynops.
                                                                        23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2217FC04612CDE10 CRC64;
                                                                                                                                                                        46A0B158A9F79C6C CRC64;
                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hastie N., Van Heyningen V.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               426
                                                                                                                                 DB 13;
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                                                                                                                               Length 426;
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RESULT
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Best Local
                                                                                                                                           PRAM; PFUZIOS; MIL, N. PRAM; PFUZIOS; PROMO48; ZINCFINGER. C2H2; 4.
PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
Zinc-finger; Metal-binding; DNA-binding.
Zinc-finger; Metal-binding; 9C362E1684E67668 CRC64;
                                                                                                                                                                                                            PFAM; PF00096; zf-C2H2; 4. PFAM; PF02165; WT1; 2.
                                                                                                                                                                                                                                                                          Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases. EMBL; AL021531; CAA16491.1; ...
                                                                                                                                                                                                                                                                                                                                                                                                                  Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       093433;
                                                                                                                                                                                                                                             INTERPRO;
                                    104 AGQPRMFPNGTCLPSCMD 121
                                                                                                                                                                                                                                                         INTERPRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-NOV-1998
01-OCT-2000
                                                                                                                                                                                                                                                                                                             "Complete sequencing of the Fugu WAGR region from WT1 to PAX6 dramatic compaction and conservation of synteny with human chromosome
                                                                                                                                                                                                                                                                                                                                                     Hastie N.;
                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=31033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WILMS TUMOUR GENE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Eel WT1 sequence and expression in spontaneous nephroblastomas in Japanese eel."; Gene 245:245-251(2000).
EMBL; AB030741; BAA90558.1; -.
SEQUENCE 392 AA; 43892 MW; DAE1A84828F43DF6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Anguilla japonica (Japanese eel).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Anguilliformes; Anguilloidei;
Anguillidae; Anguilla.
 11
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                                                                                                      Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-KIDNEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=7937;
                                                              6 SGQARMFPNAPYLPSCLE 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  103 PSQPPGNQARMFANGPYLPNCVD 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 PSQASSGQARMFPNAPYLPSCLE 23
                                                                                           11;
                                                                                                                                                                                                                                                                    P08046; 1AAY
                                                                                                                                                                                                                                                                                                                                                      ... Elgar G., Coles E., Kleinjan D.J., Vanheyningen V.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                         IPR000976; -.
                                                                                                                                                                                                                                                   IPR000822; -.
                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (TremBLrel. 08, Created)
(TremBLrel. 08, Last sequence (TremBLrel. 15, Last annotation)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                     52.8%;
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60.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
                                                                                                     Score 65; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
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Pred. No. 4.8e-05;
                                                                                     Mismatches
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                                                                                                            DB 13; Length 416;
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Q16591
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Best Local ;
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016591;
01-NOV-1996 (TrEMBLrel. 01, C
01-NOV-1996 (TrEMBLrel. 01, L
01-NOV-1998 (TrEMBLrel. 08, L
           MEDLINE-88203638; PubMed-2834731; Finver S.N., Nishikura K., Finger L.R., Haluska F.G., Finan J., Nowell p.C., Croce C.M., "Sequence analysis of the MYC oncogene involved in the "Sequence analysis of the MYC oncogene involved in Likemia T. (8:14)(q24;q11) chromosome translocation in a human laukemia T.
                                                                                                                                                                                                                                             SEQUENCE FROM N.A.

MEDLINE-#87048763; PubMed=3778453;

Eladari M.E., Syed S.H., Guilhot S., d'Auriol L., Galibert F.;

"On the high conservation of the human c-myc first exon.";

"On the high conservation of the 313-319(1986).
                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                      Gazin C., De Dinechin S., Hampe A., Masson J.M., Martin P., Stehelin D., Galibert F.;
                                                                                                                                             ЕМВО J.
                                                                                                                                                      "Nucleotide sequence of the human c-myc reading frame within the first exon.";
                                                                                                                                                                                                                   MEDLINE=84182501; PubMed=6714223;
                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota;
                                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                    C-MYC ONCOGENE,
                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRINTS; PR00049; WILMSTUMOUR.
PROSITE; PS00028; ZINC_FINGER_C2H2;
SEQUENCE 419 AA; 46925 MW; 606AI
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01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-OCT-2000 (TrEMBLrel. 15, Last annotation update)
WILMS' TUMOR SUPPRESSOR.
Brachydanio rerio (Zebrafish) (Zebra danio).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Smith S.I., Down M., Power M., Boyd A.W.; "Isolation and characterization of a cDNA encoding zebrafish rerio) WT-1.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Actinopterygii; Neopterygii; Teleostei; Euteleostei; Cypriniformes; Cyprinidae; Rasborinae; Danio.
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INTERPRO; IPR000976; -.
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                                                                                                SSUE=LEUKEMIA;
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indicates that putative regulatory regions are not altered.
                                                                                                                                          3:383-387(1984).
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MEDLINE=87053865; PubMed=2430795;
MEDLINE=87053865; PubMed=2430795;
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                                                                                                                                                                          EMBL; M20
SEQUENCE
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Galibert F.;
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Proc. Natl. Acad. Sci. U.S.A. 80:7476-7480(1983)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE=84170251; PubMed=6324175;
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MEDLINE=87089682; PubMed=3540591;
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                             MEDLINE-88203638; PubMed=2834731;
Finver S.N., Nishikura K., Finger L.R., Haluska F.G.,
Nowell P.C., Croce C.M.;
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                                                                                                                                                                                                  "Sequence analysis of the MYC oncogene involved in the t(8:14)(q24;q11) chromosome translocation in a human leukemia T-cell line indicates that putative regulatory regions are not altered."; Proc. Natl. Acad. Sci. U.S.A. 85:3052-3056(1988).
EMBL; M20605; AAA59886.1; -
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Pred. No.
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01-NOV-1996
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Q84509;
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01-JUN-1998 (TrEMBLrel. 106, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN TYPE 5 (FRAGMENT).
Bubalus bubalus (water buffalo).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                virus PBCV-1 genome.";
Virology 206:339-352(1995).
Virology 206:339-352(1995).
SEQUENCE 778 AA; 84593 MW;
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                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=RIVER TYPE (MURRHA); TISSUE-OVARY;
Beg M.A., Appa Rao K.B.C., Totey S.M.;
Submitted (JAN-1998) to the EMBL/GenBank/DDBJ databases.
EMBL; AF045566; AAC02555.1; ...
INTERPRO; IPR000716; ...
                                                                                                                                                                                                                                                              Bovidae; Bovinae; Bubalus. NCBI_TaxID=89462;
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Lu Z., Li Y., Zhang Y., Kutish G.F.,
"Analysis of 45 kb of DNA located at
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Pred. No. 2.
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Phycodnaviridae; Phycodnavirus.
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  associated with abnormal urogenital development in
                     Pelletier J., Bruening W., Kashtan C.E., Mauer S.M. Striegel J.E., Houghton D.C., Junien C., Habib R., Fine R.N., Silverman B.L., Haber D.A., Housman D., "Germline mutations in the Wilms' tumor suppressor
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                                                                                                                              MEDLINE=92005721; PubMed=1655284;
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Hastie N.D.;
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MEDLINE=92279213; PubMed=1317572;
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Haber D.A., Sohn R.L., Buckler A.J., Pelletier J., Call K.M.,
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DISEASE: WILM'S TUMOR (WT) IS AN EMBRYONAL MALIGNANCY OF THE KIDNEY THAT AFFECTS APPROXIMATELY 1 IN 10,000 INFANTS AND YOUNG CHILDREN. IT OCCURS BOTH IN SPORADIC AND HEREDITARY FORMS. INACTIVATION OF WT1 IS ONE OF THE CAUSES OF WILM'S TUMOR. DISEASE: PATIENTS WITH DENYS-DRASH SYNDROME (DDS), WHICH IS CHARACTERIZED BY A TYPICAL NEPHROPATHY AND GENITAL ABNORMALITIES,

HAVE DEFECTS IN THE WT1 GENE.
DISEASE: DEFECTS IN WT1 ARE ALSO A CAUSE OF DIFFUSE MESANGIAL

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Haber D.A., Buckler A.J.; "WT1: a novel tumor suppressor gene inactivated in Wilms' tumor."; "Biol. 4:97-106(1992)."
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                                                                                                                          -11 SUBCELLULAR LOCATION: NUCLEAR.
11 ALTERNATIVE PRODUCTS: TWO ALTERNATIVE SPLICE SITES
11 TISSUE SPECIFICITY: EXPRESSED IN THE KIDNEY AND A SEMENATOPOIETIC CELLS.
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                                                                                                                                                                              EB J. 7:896-903(1993).

FUNCTION: POTENTIAL ROLE IN TRANSCRIPTIONAL REGULATION. RECOGNIZES AND BINDS TO THE DAY.

CONTROL OF THE DAY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Genet. 62:824-833(1998).
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Query Match
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EMBL; M80218; AAA61299.1; JOINED.
EMBL; M80218; AAA61299.1; JOINED.
EMBL; M80220; AAA61299.1; JOINED.
EMBL; M80221; AAA61299.1; JOINED.
EMBL; M80221; AAA61299.1; JOINED.
EMBL; M80228; AAA61299.1; JOINED.
EMBL; M80229; AAA61299.1; JOINED.
EMBL; M80231; AAA61299.1; JOINED.
EMBL; M80231; AAA61299.1; JOINED.
                                                                                                                                                                                                                                                                                                                                                INTERPRO: ILKNUUS;;
PRAN; PRO0096; zf-C2H2; 4.
PRANTS; PRO0048; ZINCFINGER.
PRINTS; PRO0048; WILMSTUMOUR.
PROSTTE; PS00028; ZINC_FINGER_C2H2; 4.
ZINC_FINGER_DRA_C2H2; 4.
ZINC_FINGER_DRA_C1H2; Repeat; Nuclear protein;
Zinc_finger; Metal-binding; DNA_C1H2; Repeat; Nuclear protein;
Zinc_finer; Metal-binding; Alternative splicing; Anti-oncogene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL;
EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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TRANSFAC; TO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SCLEROSIS (DMS), A FORM A DDS. SIMILARITY: BELONGS TO THE EGR FAMILY OF C2H2-TYPE ZINC-FINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WWW-"http://www.umd.necker.fr:2003,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DATABASE: NAME=WT1; NOTE=WT1 mutation database;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PROTEINS
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X60232; AAA61299.1; JOINED.

M80217; AAA61299.1; JOINED.

M80218; AAA61299.1; JOINED.

M80219; AAA61299.1; JOINED.
 l Similarity
23; Conserv
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  Conservative
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181
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          100.0%;
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                                                                                                  C -> G (IN DDS).

/FTId=VAR_007744.

R -> C (IN WT).

/FTId=VAR_007745.
                                                                                                                                                                                  /FTId=VAR_007741
S -> C / TI
                                                                                                                                                                                                       S -> N (IN WT).
/FTId=VAR_007740.
G -> A (IN WT).
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                                                                                                                                                                                                                                                                                     C2H2-TYPE
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                                           H -> Q (IN DDS).
/FTId=VAR_007747.
H -> Y (IN DDS/DMS).
                                                                              R -> H (IN DDS).
/FTId=VAR_007746.
                                                                                                                                               S -> G (IN MESOTHELIOMA).
/FTId=VAR_007742.
C -> Y (IN DDS).
/FTId=VAR_007743.
Score 123; DB 1;
Pred. No. 1.4e-11;
; Mismatches 0;
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Best Local
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P22561;
01-AUG-1991 (Rel. 19, Created)
01-AUG-1991 (Rel. 19, Last sequ
01-OCT-2000 (Rel. 40, Last anno
WILMS, TUMOR PROTEIN HOMOLOG.
                                                                                                                                    VARSPLIC
VARSPLIC
SEQUENCE
                                                                                                                                                                                               ZN_FING
ZN_FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.lsb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -!- SUBCELLULAR LOCATION: NÜCLEAR.
-!- ALTERNATIVE PRODUCTS: TWO ALTERNATIVE SPLICE SITES EXISTS.
-!- TISSUE SPECIFICITY: KLÜNEY.
-!- DEVELOPMENTAL STAGE: EXPRESSED DURING KIDNEY DEVELOPMENT.
-!- SECHELLARITY: BELONGS TO THE EGR FAMILY OF C2H2-TYPE ZINC-FINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDIINE=91141522; PubMed=1671709;
Buckler A.J., Pelletier J., Haber D.A., Glaser T., Housman D.E.;
Buckler A.J., Pelletier J., Haber D.A., Glaser T., Housman D.E.;
"Isolation, characterization, and expression of the murine Wilms'
tumor gene (WT1) during kidney development.";
Mol. Cell. Biol. 11:1707-1712(1991).
-i- FUNCTION: POTENTIAL ROLE IN TRANSCRIPTIONAL REGULATION. RECOGNIZES
-i- FUNCTION: POTENTIAL ROLE IN TRANSCRIPTIONAL REGULATION. RECOGNIZES
AND BINDS TO THE DNA SEQUENCE 5'-CGCCCCGC-3'.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WT1 OR WT-1.
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                                                                                                                                                                                      ZN_FING
                                                                                                                                                                                                                                                   DOMAIN
                                                                                                                                                                                                                                                                              Transcription
                                                                                                                                                                                                                                                                                              Zinc-finger;
                                                                                                                                                                                                                                                                                                               PROSITE; PS00028; ZINC_FINGER_C2H2; 4.
                                                                                                                                                                                                                                                                                                                               PRINTS;
                                                                                                                                                                                                                                                                                                                                            PRINTS;
                                                                                                                                                                                                                                                                                                                                                            PFAM; PF00096; zf-C2H2; 4.
                                                                                                                                                                                                                                                                                                                                                                       INTERPRO; IPRO00822;
INTERPRO; IPRO00976;
                                                                                                                                                                                                                                                                                                                                                                                                         MGD; MGI:98968; WT1
                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSFAC; T02351;
                                                                                                                                                                                                                                                                                                                                                                                                                                      PIR; A39692; A39692.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M55512; AAA40573.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
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117
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              PSQASSGQARMEPNAPYLPSCLE 23
                                                             23;
                                                                                                                                                                                                                                                                                                                           PR00048; ZINCFINGER. PR00049; WILMSTUMOUR.
                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (Rel. 19, Created)
(Rel. 19, Last sequence update)
(Rel. 40, Last annotation update)
                                                           Conservative
                                                                                                                                                                                                                                                                Metal-binding; DNA-binding; Repeat; Nuclear protein; n regulation; Alternative splicing; Anti-oncogene. 28 83 PRO-RICH.
                                                                                                                                       AA;
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438
266
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Rodentia;
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C2H2-TYPE.
C2H2-TYPE.
C2H2-TYPE.
                                                                                                                                     MISSING (IN ISOFORM 2 AND MISSING (IN ISOFORM 2 AND; 962381E9C8D7A380 CRC64;
                                                                                                                                                                                                                                                   ZINC FINGERS.
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                                                                           Pred. No.
                                                                                        Score 123;
                                                             Mismatches
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                                                                          1.4e-11;
                                                                                          DB 1;
                                                                                        Length 449;
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                                               9KD_HUMAN
P13994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ZN_FING
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05-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
WILMS' TUMOR PROTEIN HOMOLOG.
    01-JAN-1990
                          01-JAN-1990
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Transcription
DOMAIN 2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRINTS; PR00049; WILMSTUMOUR.
PROSITE; PS00028; ZINC_FINGER_C2H2; 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERPRO; IPR000976; -. PFAM; PF00096; zf-C2H2; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; AB010969; BAA28147.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or send an email to license@isb-sib.ch).
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VARSPLIC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRINTS;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- FUNCTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tsurutani N.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=98267201;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mammalia; Eutheria; Cetartiodactyla;
                                                                                                                                                                                        117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cDNA cloning and developmental expression of the porcine homologue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ishikawa T.
                                                                                                                                                                                                       1 PSQASSGQARMEPNAPYLPSCLE
                                                                                                                    G
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FUNCTION: POTENTIAL ROLE IN TRANSCRIPTIONAL REGULATION. RECOGN:
AND BINDS TO THE DNA SEQUENCE 5'-CGCCCCGC-3'.

SUBCELLULAR LOCATION: NUCLEAR.

ALTERNATIVE PRODUCTS: TWO ALTERNATIVE SPLICE SITES EXISTS.

ALTERNATIVE PRODUCTS: TWO ALTERNATIVE SPLICE SITES EXISTS.

DEVELOPMENTAL STAGE: EXPRESSED DURING KIDNEY DEVELOPMENT.

SUBLILARITY: BELONGS TO THE EGR FAMILY OF C2H2-TYPE ZINC-FINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEINS.
                                                                                                                                                                                    PSQASSGQARMFPNAPYLPSCLE 139
                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PR00048; ZINCFINGER.
                                                                                                                                                                                                                                                                                                                                                                                             449
                                                                                                                                                                                                                                                                       100.0%;
milarity 100.0%;
Conservative 0
  (Rel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           201; PubMed=9602131;
Oda H., Nakatsuru Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             regulation;
                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STANDARD;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a license agreement (See http://www.isb-sib.ch/announce/
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  Last sequence update
                          Created)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA-binding; Repeat; Nuclear protein;
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C2H2-TYPE.
C2H2-TYPE.
C2H2-TYPE.
                                                                                                                                                                                                                                                                                                                                                                                    SIMILARITY).

MISSING (IN ISOFORM 2 AND SIMILARITY).
; 9C3E557B96F5A7B3 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MISSING (IN ISOFORM 2 AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C2H2-TYPE
                                                                                                                                                                                                                                                                                                 Score 123;
Pred. No.
                                                                       PRT;
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use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).

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YD03
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Best Local
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YD03 YEAST
STANDARD;
PRT; 885 AA.
Q06639;
01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
01-NOV-1997 (Rel. 35, Last annotation update)
                                                                                                                                      STRAIN-S288C / AB972;
Johnston M., Andrews S., Brinkman R., Cooper J., Ding H., Du Z.
Johnston M., Andrews S., Brinkman R., Cooper J., Kirsten J.,
Kucaba T., Fulton L., Gattung S., Greco T., Kirsten J.,
Kucaba T., Hallsworth K., Hawkins J., Hillier L., Jier M.,
Johnson D., Johnston L., Langston Y., Latreille P., Le T.,
Mardis E., Menezes S., Miller N., Nhan M., Pauley A., Peluso D.
Rifken L., Riles L., Taich A., Trevaskis E., Vignati D.,
Rifken L., Wohldman P., Vaudin M., Wilson R., Waterston R.;
Wilcox L., Wohldman P., Vaudin M., Wilson R., Waterston R.;
Submitted (JUN-1995) to the EMBL/GenBank/DDBJ databases.

-i- SUBCELLULAR LOCATION: NUCLEAR (PROBABLE).

-i- SIMILARTIY: CONTAINS A ZN(2)-CYS(6), FUNGAL-TYPE BINUCLEAR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contentitles requires a light of the statement is not removed.
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              poly(rI).poly(rC) and Newcastle disease virus.";
Eur. J. Biochem. 178:93-99(1988).
-!- INDUCTION: BY POLY(RI), POLY(RC) AND NEWCASTLE DISEASE VIRUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               INTERGENIC REGION.
YDR303C OR D9740.13.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL; X13956; CAA32138.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-FIBROBLAST;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lammers R., Gross G., Mayr U.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KDA PROTEIN
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                                                                                                                       CLUSTER DOMAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    an email to license@isb-sib.ch).
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47.8%;
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Pred. No. 0.19
3; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (See http://www.isb-sib.ch/announce,
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DNA_BIND 14 42 ZN(2)-CYS(6), FUNGAL-TYPE.
SEQUENCE 885 AA; 101720 MW; 2DB1D529E2686A0A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROSITE; PS00463; ZN2_CY6_FUNGAL_1; 1.
PROSITE; PS50048; ZN2_CY6_FUNGAL_2; 1.
Hypothetical protein; Transcription regulation; DNA-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q13490; Q16516;
Q1-NOV-1997 (Rel. 35, Created)
Q1-NOV-1997 (Rel. 35, Last sequence update)
Q1-OCT-2000 (Rel. 40, Last annotation update)
INHIBITOR OF APOPTOSIS PROTEIN 2 (HIAP2) (HIAP-2) (C-IAP1) (TNFR2-TRAF SIGNALING COMPLEX PROTEIN 2) (IAP HOMOLOG B).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U28374;
HSSP; P08657;
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Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Liston P., Roy N., Tamai K., Lefebvre C., Baird S., Cherton-Horvat G., Farahani R., McLean M., Ikeda J., Mackenzie A., Korneluk R.G.; "Suppression of apoptosis in mammalian cells by NAIP and a related family of IAP genes."; nature 379:349-353(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Rothe M., Pan M.-G., Henzel W.J., Ayres T.M., Goeddel D.V.; riche TNFR2-TRAF signaling complex contains two novel proteins related to baculoviral inhibitor of apoptosis proteins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cell 83:1243-1252(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IAP2_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                         Uren A.G., Pakusch M., Hawkins C.J., Puls K.L., Vaux D.L.; "Cloning and expression of apoptosis inhibitory protein homolog: function to inhibit apoptosis and/or bind tumor necrosis factor receptor-associated factors.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TISSUE=FETAL LIVER; MEDLINE=96209843; PubMed=8643514;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE-LIVER;
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                                                                                                                                                                                                                                   Hinds M.G., Norton R.S., Vaux D.L., Day C.L.; "Solution structure of a baculoviral inhibitor of apoptosis (IAP)
                                                                                                                                                                                                                                                                                     MEDLINE-99332054; PubMed=10404221;
                                                                                                                                                                                                                                                                                                                              STRUCTURE BY NMR OF 266-363
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                        STRUCT. Biol. 6:648-651(1999).

STRUCTION: APOPTOTIC SUPPRESSOR. THE BIR MOTIFS REGION INTERACTS WITH TWE RECEPTOR ASSOCIATED FACTORS 1 AND 2 (TRAF1 AND TRAF2) TO FORM AN HETEROMERIC COMPLEX, WHICH IS THEN RECRUITED TO THE TUMOR NECROSIS FACTOR RECEPTOR 2 (TNFR2).

SUBCELLULAR LOCATION: CYTOPLASMIC (POTENTIAL).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1CLD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            YDR303C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PubMed=8548810;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39.8%;
         PRESENT IN MANY FETAL AND ADULT TISSUES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 49;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      618 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 885;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein homologs that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    5.
4.
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B
                                                                                                                                                                                                                                      IBP5
    Query Match
                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for comentities requires a license of the statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PEAM; PFOO
PEAM; PFOO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-slb.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PDB; 1QBH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; U37547;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS50143; BIR_REPEAT_2; PROSITE; PS50209; CARD; 1.
                                                                                                                                                                                                          IBP5_MOUSE
Q07079;
                                                                                                                                                                                                                                      MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS01282; BIR_REPEAT_1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PFAM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INTERPRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERPRO;
                                                                                                                                        01-OCT-1994 (Rel. 30, Created)
01-OCT-1994 (Rel. 30, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN 5 PRECURSOR (IGFBP-5)
(IGF-BINDING PROTEIN 5).
                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                       CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                  CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                            CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZN_FING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REPEAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Apoptosis;
                                                                                                                  Mus musculus (Mouse)
(IGFBP-5) is expressed during myoblast differentiation
               James P.L., Jones S.B., Busby W.H. Jr., Clemmons D.R., Rotwein "A highly conserved insulin-like growth factor-binding protein
                                        TISSUE=MYOBLASTS;
MEDLINE=94042976; PubMed=7693664;
                                                                                                        Eukaryota; Metazoa;
                                                                                                                                IGFBP5 OR IGFBP-5
                                                                                                                                                                                                                                                                                        236 AMSEHRRHFPNCPFLENSLE 255
                                                                SEQUENCE FROM N.A., AND PARTIAL SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SIMILARITY: BELONGS TO THE IAP FAMILY.
SIMILARITY: CONTAINS 3 BIR DOMAINS (BACULOVIRAL INHIBITION APOPTOSIS PROTEIN REPEAT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: CONTAINS 1 CARD DOMAIN.
SIMILARITY: CONTAINS A C3HC4-CLASS ZINC FINGER
                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MAINLY EXPRESSED IN ADULT SKELETAL MUSCLE, THYMUS, TESTIS, OVARY, AND PANCREAS, LOW OR ABSENT IN BRAIN AND PERIPHERAL BLOOD
                                                                                                                                                                                                                                                                                                               4 ASSGQARMEPNAPYLPSCLE 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LEUKOCYTES.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        601721;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PF00653; BIR; 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              U45879;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L49431;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PF00619; CARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  IPR001370;
IPR001841;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IPR001315;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-OCT-99.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Zinc-finger; Repeat; 3D-structure.
                                                                                            Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                            618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAC50372.1; -.
AAC50508.1; -.
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            zf-C3HC4;
                                                                                                                                                                                                                                                                                                                                                                                                             AA.
                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                     250
336
539
605
157
157
414
                                                                                                                                                                                                                                                                                                                                                                                                            69899 MW;
                                                                                                                                                                                                                                                                                                                                                          39.0%;
                                                                                                          Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                        C3HC4-TYPE.
S -> P (IN REF. 2)
C -> G (IN REF. 2)
Q -> L (IN REF. 4)
L -> W (IN REF. 4)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BIR REPEAT
                                                                                                                                                                                                                                                                                                                                              2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARD
                                                                                                                                                                                                                                                                                                                                                           Score 48; I
Pred. No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIR REPEAT
                                                                                                                                                                                                                              PRT;
                                                                                             Sciurognathi; Muridae; Murinae;
                                                                                                           Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                             C1778D328063586D CRC64;
                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                               271 AA
                                                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                        Length 618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and for commercial
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                                                             RESULT
                                              IBP5_PIG
                                                                                                                                                              Matches
                                                                                                                                                                                        Query Match
 Q28985;
01-NOV-1997
                              IBP5_PIG
                                                                                                                                                                                                                                    SEQUENCE
                                                                                                                                                                                                                                                    CONFLICT
                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                 PFAM; PF00086; thyroglobulin_1; 1.
PROSITE; PS00222; IGF_BINDING; 1.
                                                                                                                                                                                                                                                                                                                                                                                           MGD; MGI:96440; IGFBP5
INTERPRO; IPR000716; -
INTERPRO; IPR000867; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the EM the European Bioinformatics Institute. There are no restruse by non-profit institutions as long as its content modified and this statement is not removed. Usage by and
                                                                                                  200 QEFKASPRMVPRAVYLPNC 218
                                                                                                                                                                                                                                                                                               CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=94307727; PubMed=7518410;
KOU K., Jenkins N.A., Gilbert D.J., Copeland N.G., Rotwein P.;
"Organization, expression, and chromosomal location of the mouse
insulin-like growth factor binding protein 5 gene.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Schuller A.G.P., Groffen C., van Neck J.W., Zwarthoff E.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Drop S.L.S
                                                                                                                                                              Local Similarity
ses 9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "CDNA cloning and mRNA expression of the six mouse insulin-like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genomics 20:412-418(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=95121750; Pubmed=7529732;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                             3 QASSGQARMFPNAPYLPSC 21
                                                          9
                                                                                                                                                                                                                                                                                                                                                                                                                                 L; L12447; AAC37636.1; -.
L; U02025; AAC01750.1; -.
L; U02023; AAC01750.1; JOINED.
L; U02027; AAC01750.1; JOINED.
L; U02027; AAC01750.1; JOINED.
L; U02024; AAC01750.1; JOINED.
L; X81583; CAA57273.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Biol. Chem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               with factor binding proteins.";

Cell. Endocrinol. 104:57-66(1994).
FUNCTION: IGF-BINDING PROTEINS PROLONG THE HALF-LIFE OF THE IGFS AND HAVE BEEN SHOWN TO EITHER INHIBIT OR STIMULATE THE GROWTH PROMOTING PETECTS OF THE IGFS ON CELL CULTURE. THEY ALFER THE INTERACTION OF IGFS WITH THEIR CELL SURFACE RECEPTORS.
SUBCELLULAR LOCATION: SECRETED.
TISSUE SPECIFICITY: MOST ABUNDANT IN KIDNEY, UTERUS AND GASTROCNEMIUS MUSCLE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SIMILARITY: CONTAINS 1 THYROGLOBULIN TYPE-I DOMAIN.
SIMILARITY: BELONGS TO THE INSULIN-LIKE GROWTH FACTOR BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROTEIN FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                PF00219; IGFBP;
                                                                                                                                                                                                                                                                                                                         factor
                                                                                                                                                                                                                                                                                                                              PS00484; THYROGLOBULIN_1; 1.
(Rel. 35, Created)
                                                                                                                                                                                                                                271 AA;
                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                            20
                                                                                                                                                                                                                                                                                                                   binding; Signal.
                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               268:22305-22312(1993).
                                                                                                                                                                                                                                                               262
                                                                                                                                                                                                                                                                                            271
                                                                                                                                                                                                                                30372 MW;
                                                                                                                                                                       38.2%;
                                                                                                                                                                     Score 47; DB Pred. No. 3.8;
                                                                                                                                                                                                                                               MISSING
                                                                                                                                                                                                                                           THYROGLOBULIN TYPE I. MISSING (IN REF. 2).
                                                                                                                                                                                                                                                                         INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN 5.
                                                                                                                                                                                                                                                                                                     POTENTIAL.
                                                                                                                                                                                                                             F55A58729861F6F0 CRC64;
                                                                                                                                                        Mismatches
                        271 AA
                                                                                                                                                                                   DB 1; Length 271;
                                                                                                                                                        9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        restrictions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             is in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a collaboration
                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for commercial
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AC DT DT DT DT DT DE DE DE CN OC OC OC RN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 10
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                                                                                                                                                                                                                                                                                                             Qy
                                                                                                                                                                                                                    IBP5_RAT
                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                             Best Local
                                                                                        01-MAR-1992 (Rel. 21, Created)
01-MAR-1992 (Rel. 21, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN 5
(IBP-5) (IGF-BINDING PROTEIN 5).
SEQUENCE FROM N.A., AND SEQUENCE OF 20-53.
                                   Mammalia; Eutheria; Rodentia;
                                                   Rattus norvegicus (Rat).
Eukaryota; Metazoa; Chor
                                                                                                                                                                                    IBP5_RAT P24594;
                                                                                 IGFBP5 OR IGFBP-5.
                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFAM; PF00219; IGFBP; 1.
PFAM; PF00086; thyroglobulin_1; 1.
PROSITE; PS00222; IGF_BINDING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Growth factor binding; Signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; U41340; AAA87859.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem. Biophys. Res. Commun. 218:248-253(1996).

1. FUNCTION: ICF-BINDING PROTEINS PROLONG THE HALF-LIFE OF THE IGFS AND HAVE BEEN SHOWN TO EITHER INHIBIT OR STIMULATE THE GROWTH PROMOTING EFFECTS OF THE IGFS ON CELL CULTURE. THEY ALTER THE INTERACTION OF ICFS WITH THEIR CELL SURFACE RECEPTORS.
                                                                                                                                                                                                                                                                                200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INTERPRO;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  White M.E., Diao R., Hathaway M.R., Mickelson J., Dayton W.R., "Molecular cloning and sequence analysis of the porcine insulin-like growth factor binding protein-5 complementary deoxyribonucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=96136309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metažoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sus scrofa (Pig).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1997 (Rel. 35, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN 5 PRECURSOR (IGFBP-5)
(IBP-5) (IGF-BINDING PROTEIN 5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=SKELETAL MUSCLE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IGFBP5
                                                                                                                                                                                                                                                                                                           3 QASSGQARMFPNAPYLPSC 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SUBCELLULÂR LOCATION: SECRETED.
SIMILARITY: CONTAINS 1 THYROGLOBULIN TYPE-I DOMAIN.
SIMILARITY: BELONGS TO THE INSULIN-LIKE GROWTH FACTOR BINDING
                                                                                                                                                                                                                                                                           QELKASPRMVPRAVYLPNC 218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROTEIN FAMILY.
                                                                                                                                                                                                                                                                                                                                            Similarity
9; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PS00484; THYROGLOBULIN_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IPR000716;
                                                                                                                                                                                                                                                                                                                                                                                                                        214
271 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                IPR000867;
                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20
                                                                                                                                                                                                STANDARD;
                          Chordata; Craniata; Vertebrata; Euteleostomi; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                     262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=8573141;
                                                                                                                                                                                                                                                                                                                                                                                                                      30323 MW;
                                                                                                                                                                                                                                                                                                                                                        38.2%;
                                                                                                                                                                                                                                                                                                                                                      Score 47; I
Pred. No. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                   THYROGLOBULIN TYPE
                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            INSULIN-LIKE GROWTH FACTOR BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROTEIN 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    POTENTIAL
                                                                                                                                                                                                                                                                                                                                                                                                                   95C254E95DC4ED8D CRC64;
                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                              271 AA
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                                                                                                                                                                                                                                                                                                                                                      .8
                                                                                                           PRECURSOR (IGFBP-5)
                                                                                                                                                                                                                                                                                                                                                                    Length 271;
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RESULT 11
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         novel IGFBP-5 in rat and human.";
J. Biol. Chem. 266:10646-10653(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         proteins (IGFBPs) from adult rat serum and molecular cloning of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shimasaki S., Shimonaka M., Zhang H.-P., Ling N.; Shimasaki S., Shimonaka M., Zhang H.-P., Ling N.; Shimonaka M., Zhang H.-P., Ling N., Shimonaka M., 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE-OVARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-SPRAGUE-DAWLEY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PFAM; PF00086; thyroglobulin_1; 1.
PROSITE; PS00222; IGF_BINDING; 1.
PROSITE; PS00484; THYROGLOBULIN_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; JC1463; JC1463.
PIR; F40403; F40403.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; L08275;
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                                                                                                                                        01-MAR-1992 (Rel.
01-MAR-1992 (Rel.
15-JUL-1999 (Rel.
                                                                                                                                                                                                                                                                                      HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
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                                                                                                                                                                                                                              IBP5_HUMAN P24593;
  Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                        IGFBP5 OR IBP5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         INTERPRO; IPR000867; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INTERPRO; IPR000716; -.
                       Homo sapiens (Human)
                                                                                                          INSULIN-LIKE GROWTH
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SUBCELLULAR LOCATION: SECRETED.
TISSUE SPECIFICITY: MOSTLY IN KIDNEY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             oning of the rat insulin-like growth factor binding protein-5 oning of the rat insulin-like growth factor binding protein-5 and DNA sequence analysis of its promoter region."; chem. Biophys. Res. Commun. 190:1045-1052(1993). Chem. Biophys. Res. Commun. 190:1045-1052(1993). FUNCTION: IGF-BINDING PROTEINS PROLONG THE HALF-LIFE OF THE IGF ON THE HALF-LIFE OF THE GROWTH AND HAVE BEEN SHOWN TO EITHER INHIBIT OR STIMULATE THE GROWTH AROMOTING EFFECTS OF THE IGFS ON CELL CULTURE. THEY ALTER THE PROMOTING EFFECTS OF THE IGFS ON CELL CULTURE. THEY ALTER THE MINISTER OF THE IGFS ON CELL CULTURE.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROTEIN FAMILY.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      QASSGQARMFPNAPYLPSC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 factor binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
9; Conser
                                                                                  (IGF-BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         214
271 AA;
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                                                                                                                                                                                                                                                           STANDARD;
                                                                                     21, Created)
21, Last sequence update)
38, Last annotation updat
38, Last annotation profile
WIH FACTOR BINDING PROTEIN
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30298
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 47; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THYROGLOBULIN TYPE I. 545B4C48F9BB5493 CRC64;
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                                                                                                                                                                                                                                                              272 AA
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3.8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 271;
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Allander S.V., Larsson C., Ehrenborg E., Suwanichkul A. Morris S.L., Bajalica S., Kiefer M.C., Luthman H., Powe "Characterization of the chromosomal gene and promoter insulin-like growth factor binding protein-5."; J. Biol. Chem. 269:10891-10898(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shimasaki S., Shimonaka M., Zhang H.-P., Ling N., "Identification of five different insulin-like growth factor binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=91244847; PubMed=1709938;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kiefer M.C., Toh R.S., Bauer D.M., Zapf J.;
"Molecular cloning of a new human insulin-like growth factor binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=91207396; PubMed=1850258;
Kiefer M.C., Ioh R.S., Bauer D.M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TISSUE-OSTEOSARCOMA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mammalia; Eutheria;
                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                       receptor interactions.";
EMBO J. 17:6558-6572(1998).

-i- FUNCTION: IGF-BINDING PROTEINS PROLONG THE HALF-LIFE OF THE IGFS AND HAVE BEEN SHOWN TO EITHER INHIBIT OR STIMULATE THE GROWTH PROMOTING EFFECTS OF THE IGFS ON CELL CULTURE. THEY ALTER THE INTERACTION OF IGFS WITH THEIR CELL SURFACE RECEPTORS.

-i- SUBCELLULAR LOCATION: SECRETED.

-i- TISSUE SPECIFICITY: OSTEOSARCOMA, AND AT LOWER LEVELS IN LIVER,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=94193798; PubMed=7511611;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        J. Biol. Chem. 266:10646-10653(1991).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Biochem. Biophys. Res. Commun. 176:219-225(1991).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kalus W., Zweckstetter M., Renner C., Sanchez Y., Georgescu J., Grol M., Demuth D., Schumacher R., Dony C., Lang K., Holak T.A.; "Structure of the IGF-binding domain of the insulin-like growth factor-binding protein-5 (IGFBP-5): implications for IGF and IGF-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRUCTURE BY NMR OF 60-106.
MEDLINE=99043863; PubMed=9822601;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Blochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    osteoblast-like cells."
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                                                                                      EMBL;
                                                                                                                                      entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "A novel human insulin-like growth factor binding protein secreted by
                                                                                                       EMBL;
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                                                                                                                                                                                                                                                                                                      SIMILARITY: CONTAINS 1 THYROGLOBULIN TYPE-I DOMAIN. SIMILARITY: BELONGS TO THE INSULIN-LIKE GROWTH FACTOR BINDING
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                                                                                      M62782;
                                                                                                        M65062; AAD04730.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gibbs R.A.;
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                                                                     AAA53505.1;
AAA72051.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Commun.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     176:213-218(1991)
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EMBL; EMBL;

L27559;

EMBL;

L27556; AAA72051.1; JOINED. L27557; AAA72051.1; JOINED. L27558; AAA72051.1; JOINED. AF055033; AAC09368.1; -.

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    Query Match
Best Local S
Matches 9
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                                                                     SEQUENCE
                                                                                                                                                                              use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                            SIMILAR
                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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01-OCT-2000 (Rel. 40, Last sequence update)
01-OCT-2000 (Rel. 40, Last annotation update)
LYSYL-TRNA SYNTHETASE (EC 6.1.1.6) (LYSINE--TRNA LIGASE) (LYSRS)
                                                                                                            Aminoacyl-tRNA synthetase; Protein biosynthesis; Ligase; ATP-binding
                                                                                                                                                         EMBL; AL049707; CAB41289.1;
                                                                                                                                                                                                                                                                                                                       Submitted (APR-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                   Murphy L., Harris D., Bentley S.D., Parkhill J., Rajandream M.A.;
                                                                                                                                                                                                                                                                                                                                                                          STRAIN=A3(2);
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SEQUENCE
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                                                                                                                                  PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                               Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces
                                                                                                                                                                                                                                                                                                                                                                                                                              Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Streptomyces coelicolor.
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PFAM; PF00086; thyroglobulin_1; 1.
PROSTTE; PS00222; IGF_BINDING; 1.
PROSITE; PS00484; THYROGLOBULIN_1; 1.
Growth factor binding; Signal; 3D-structure.
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    Local Similarity hes 9; Conserv
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                                                                                                                                                                                                                                                                               SUBCELLULAR LOCATION: CYTOPLASMIC.
SIMILARITY: BELONGS TO CLASS-I AMINOACYL-TRNA SYNTHETASE FAMILY.
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146734; -.
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В40403;
                                                                                                                                              PF01921;
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                                                                                                                              01921; trna-synt_1f; 1.
PS00178; AA_TRNA_LIGASE_I; 1.
                                                                 545 AA;
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272 i
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PH0143.
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59738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 263 T
30570 MW;
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272
             37.4%;
52.9%;
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                                                                 MW;
 Score 46; DB;
Pred. No. 11;
1; Mismatches
  <u>سر</u>
٠٠
                                                             "HIGH" REGION.
"KMSKS" REGION.
; A9F8962ADB028A64 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 47; DB Pred. No. 3.8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            THYROGLOBULIN TYPE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      INSULIN-LIKE GROWTH FACTOR BINDING
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0A7AD37C6EEA3A81 CRC64;
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  7;
                        Length 545;
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Gaps
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RESULT 14
KSE1_ECOLI
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Best Local Similarity
Whiches 8; Conserve
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nuclear protein; F
DOMAIN 247
ZN_FING 247
ZN_FING 280
ZN_FING 313
ZN_FING 343
ZN_FING 374
KSE1_ECOLI
P42501;
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NON_TER
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P55878;
01-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                             139
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Gallus gallus (Chicken).

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Neoqnathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-NOV-1997
01-OCT-2000
                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U60762; AAB51659.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zinc-finger; Metal-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INTERPRO; IPR000822;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HSSP; P08151; 2GLI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     during limb development.";
Dev. Biol. 180:273-283(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Marigo V., Johnson R.L., Vortkamp A., Tabin C.J.;
"Sonic hedgehog differentially regulates expression of GLI and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ZINC FINGER PROTEIN GLII (GLI) (FRAGMENT).
GLII OR GLI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=97105842; PubMed=8948590;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
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                                                                                                                                                                                                             1 PSQASSGQARMFPNAPYLPSC 21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FUNCTION: MAY REGULATE THE TRANSCRIPTION OF SPECIFIC GENES DURING MARKED DEVELOPMENT. MAY PLAY A ROLE IN CRANTOFACTAL DEVELOPMENT AND DIGITAL DEVELOPMENT, AS WELL AS DEVELOPMENT OF THE CENTRAL NERVOUS SYSTEM AND GASTROINTESTINAL TRACT. IMPLICATED IN THE TRANSDUCTION OF SHH SIGNAL (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: BELONGS TO THE GLI FAMILY OF C2H2-TYPE ZINC-FINGER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUBCELLULAR LOCATION: NUCLEAR.
                                                                                                                                                     PPGQQKGQGQLFSHTPPLPPC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PF00096; zf-C2H2; 5.
TE; PS00028; ZINC_FINGER_C2H2;
                                                                                                                                                                                                                                                                                                                                                                                                     556 AA;
                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Rel. 35, Created)
(Rel. 35, Last sequence update)
(Rel. 40, Last annotation update)
                         STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
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38.1%;
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C2H2-TYPE.
C2H2-TYPE.
C2H2-TYPE.
                                                                                                                                                                                                                                                                                          Score 46;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          C2H2-TYPE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ZINC FINGERS
                      PRT;
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                                                                                                                                                                                                                                                                                                                                                                                               722D2AA5A1CA4D98 CRC64;
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                      382 AA
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RESULT 15
KSE5_ECOLI
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01-NOV-1995
01-FEB-1996
                                                                                                                                                                                                                                                                                  RSE5_ECOLI STANDARD; PRT; 382 AA.
P42214;
01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
01-NOV-1995 (Rel. 32, Last annotation update)
CAPSULE POLYSACCHARIDE EXPORT INNER-MEMBRANE PROTEIN KPSE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=94075243; PubMed=8253690; Cieslewicz M.J., Steenbergen S.M., Vimr E.R.; Cloning, sequencing, expression, and complementation analysis of the Escherichia coli K1 kps region 1 gene, kpsE, and identification of an upstream open reading frame encoding a protein with homology to GutQ.";
                                gene cluster: a region encoding proteins involved in cell surface expression of capsular polysaccharide.";
J. Bacteriol. 175:5978-5983(1993)
-1- FUNCTION: INVOLVED IN THE TRANSLOCATION OF THE POLYSIALIC ACID
                                                                                                                     Pazzani C., Rosenow C., Boulnois G.J., Bronner D., Jann K., Roberts I.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polysaccharide transport; Transport; Transmembrane; Inner membrane. TRANSMEM 28 48 POTENTIAL. TRANSMEM 357 377 POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                         KPSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -!- SIMILARITY: BELONGS TO THE BEXC/CTRB/KPSE FAMILY.
                                                                                 "Molecular analysis of region 1 of the Escherichia coli K5 antigen gene cluster: a region encoding proteins involved in cell surface
                                                                                                                                                    MEDLINE=93388530; PubMed=8397187;
                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                       Escherichia.
                                                                                                                                                                                                                                        Bactería;
                                                                                                                                                                                                                                                      Escherichia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN. INNER MEMBRANE
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SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN. INNER MEMBRANE
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(Rel. 32, Last sequence update)
(Rel. 33, Last annotation update)
VSACCHARIDE EXPORT INNER MEMBRANE PROTEIN KPSE.
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57.1%;
                                                                                                                                                                                                                                     gamma subdivision; Enterobacteriaceae;
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                                                                                                                                                                                                                                                                                                                        the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for con
                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                     Polysaccharide transport; Transport; Transmembrane; Inner membrane. TRANSMEM 28 48 POTENTIAL.
                                                                                                                                                                                                                                                                  EMBL; X74567; CAA52655.1;
                                                                                                                                                                                                                                                                                                                                                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
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SIMILARITY: BELONGS TO THE BEXC/CTRB/KPSE FAMILY.
114 sec
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8; Conserv
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Pred. No.
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and is derived by analysis of the total score distribution.
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A; Molecule type: mRNA

ALIGNMENTS

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R;Sharma, P.M.; Yang, X.; Bowman, M.; Roberts, V.; Sukumar, S. cancer Res. 52, 6407-6412, 1992
A;Title: Molecular cloning of rat Wilms' tumor complementary DNA and a study of messe A;Reference number: S33926; MUID:93046155
A;Accession: S33926
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S33926
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C;Species: Rattus norvegicus (Norway rat)
C;Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 10-May-1996
C;Accession: S33926
A; Cross-references: GB:S61631; GB:S99414; NID:g37981; PIDN:CAA43819.1; PID:g825731 A; Note: it is uncertain whether Met-1 is the initiator or whether translation is init A; Note: sequence extracted from NCBI backbone (NCBIN:99414, NCBIN:99422, NCBIN:99479, A; Note: the sequence in GenBank entry HSWTGEEX1, release 113.0, PIDN:CAA43819.1 diffe R; Gessler, M; Poustka, A.; Cavenee, W.; Neve, R.L.; Orkin, S.H.; Bruns, G.A.P. Nature 343, 774-778, 1990
A; Pitle: Homozygous deletion in Wilms tumours of a zinc-finger gene identified by chr A; Reference number: S08273; MUID:90158822
                                                                                                                                                                                                                                                                                                                                                                      R;Gessler, M.; Konig, A.; Bruns, G.A. Genomics 12, 807-813, 1992
A;Title: The genomic organization and expression of the WTl gene. A;Reference number: A38080; MUID:92241883
A;Accession: A38080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Wilms tumor susceptibility protein WT1 - human C;Species: Homo sapiens (man) C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 20-Jun-2000 C;Date: 31-Dec-1993 #sequence_revision 31-Dec-1993 #text_change 20-Jun-2000 C;Accession: A38080; S08273; A34673; I38504; I52811; I58315; A56411; S26286
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C;Keywords: tumor suppressor
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A; Molecule type: mRNA
A; Residues: 1-448 < SHA>
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A; Residues: 1-449 <GES1>
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Best Local Similarity
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100.0%; Pred. No. 2.4e-11;

 Mismatches

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C:Species: Mus musculus (house mouse)
C:Date: 30-Dec-1991 #sequence_revision 30-Dec-1991 #text_change 16-Feb-1997
C:Accession: A39692
R;Buckl':r, A.J.; Pelletier, J.; Haber, D.A.; Glaser, T.; Housman, D.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Map position: 11p13-11p13
A;Map position: 11p13-11p13
A;Introns: 148/1; 189/1; 223/2; 249/2; 266/2; 298/3; 349/1; 379/1; 410/1
A;Note: mRNA transcripts containing both alternatively spliced regions are the most abuning containing to both alternative suppressor; zinc finger E;1-449/Product: Wilms tumor susceptibility protein WT1, splice form 1 *status predicted E;1-407,411-449/Product: Wilms tumor susceptibility protein WT1, splice form 4 *status protein WT1, splice form 3 *status protein WT1, splice
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F;1-249,267-407,411-449/Product: Wilms tumor
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A;Cross-references: GDB:120496; OMIM:194070
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Nucleic Acids Res. 23, 277-284, 1995
A;Title: High affinity binding sites for the Wilms' tumour suppressor protein A;Reference number: I58315; MUID:95166649
A;Accession: I58315
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A; Cross-references: GB:M30393; NID:9340381; PIDN:AAA36810.1; PID:9340382
R; Habber, D.A.; Sohn, R.L.; Buckler, A.J.; Pelletier, J.; Call, K.M.; Housman, D.E.
Proc. Natl. Acad. Sci. U.S.A. 88, 9618-9622, 1991
A; Title: Alternative splicing and genomic structure of the Wilms tumor gene WT1.
A; Reference number: A56411; MUID:92052142
A; Contents: annotation; alternative splicing
R; Phelan, S.A.; Lindberg, C.; Call, K.M.
Cell Growth Differ. 5, 677-686, 1994
A; Title: Wilms' tumor gene, WT1, MRNA 1s down-regulated during induction of erythroid an A; Reference number: I38504; MUID:934368704
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A;Molecule type: DNA
A;Residues: 355-365,'H',367-377 <PEL>
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A;Title: Isolation and characterization of a zinc finger polypeptide gene at the human A;Reference number: A34673; MUID:90150277
A;Accession: A34673
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A;Note: mutant form
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R;Call, K.M.; Glaser, T.; Ito, C.Y.; Buckler, A.J.; Pelletier, J.; Haber, D.A.; Rose, E.
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C:Species: Homo sapiens (man)
C:Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 21-Jul-2000
C:Accession: 802660
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                                                                                                                                                                    A; Molecule type: mRNA
A; Residues: 1-82 <LAM>
                                                                                                                                                                                                                                        A; Title: Alternative mechanisms for gene activation induced by poly(rI) * poly(rC)
                                                                                                                                                                                                                                                                     R; Lammers, R.; Gross, G.; Mayr, U.; Collins, Eur. J. Biochem. 178, 93-99, 1988
                                                                                                                                                                                                              A; Reference number: S02660; MUID:89078418
A; Accession: S02660
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C;Comment: This protein is involved in kidney morphogenesis
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A; Residues: 1-410 <SEM>
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R;Semba, K.; Saito-Ueno, R.; Takayama, G.; Kondo, M. Gene 175, 167-172, 1996
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C;Date: 31-Jan-1997 #sequence_revision 31-Jan-1
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A;Title: Isolation, characterization, and
A;Reference number: A39692; MUID:91141522
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C; Keywords: alternative splicing; DNA binding; transcription regulation; tumor suppre
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A; Residues: 1-449 <BUC>
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1 PSQASSGQARMFPNAPYLPSCLE 23
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18; Conserv
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78.3%;
                                                           42.3%;
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                                         3; Mismatches
                                                           Score 52;
Pred. No.
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Pred. No. 2.7e-08;
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Pred. No. 2.4e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          expression of the murine Wilms' tumor gene
                                                           0.38;
                                                                              DB
                                     9,
                                                                              Length 82
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PLEASSTRARVFPCLPLYAECPE 45

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C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 15-Sep-2000
C;Accession: E82999
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Bradman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-634 <STO>
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A; Accession: E82999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           probable membrane protein YDR303c - yeast (Saccharomyces cerevisiae)
N;Alternate names: hypothetical protein D9740.13
C;Species: Saccharomyces cerevisiae
C;Date: 23-Feb-1996 #sequence_revision 01-Mar-1996 #text_change 29-Oct-1999
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                                                                                                                                                                                                                                                                                                                                                                                                    F;9-47/Domain: GAL4 zinc binuclear cluster homology <GAL4>F;422-438/Domain: transmembrane #status predicted <TM1>F;699-715/Domain: transmembrane #status predicted <TM2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C:Superfamily: unassigned GAL4-type zinc cluster proteins; GAL4 zinc binuclear cluster C:Keywords: transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:U28374; NID:g849207; PIDN:AAB64739.1; PID:g849220; GSPDB:GN0000C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Description: The sequence of S. cerevisiae cosmid 9740 A; Reference number: $51159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Accession: S61189
R;Ding, H.
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A; Residues: 1-885 <DIN>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             submitted to the EMBL Data Library, June 1995
C;Species: Homo sapiens (man)
C;Date: 31-May-1996 #sequence.
C;Accession: I79500
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Best Local Similarity
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                              #sequence_revision 31-May-1996 #text_change 05-Nov-1999
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47.8%;
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Pred. No. 14;
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                 RESULT
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R;Finver, S.N.; Nishikura, K.; Finger, L.R.; Haluska, F.G.; Finan, J.; Nowell, P.C.; Proc. Natl. Acad. Sci. U.S.A. 85, 3052-3056, 1988
A;Title: Sequence analysis of the MYC oncogene involved in the t(8;14)(q24;q11) chrom A;Reference number: I59116; MUID:88203638
A;Accession: I79500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hypothetical 21K protein (c-myc 5' region) - chimpanzee C;Species: Pan troglodytes (chimpanzee) C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 21-Jul-2000 C;Accession: JU0451 R;Argaut, C; Rigolet, M.; Eladari, M.E.; Galibert, F. R;Argaut, C; Rigolet, M.; Eladari, M.E.; Galibert, F. Gene 97, 231-237, 1991
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A; Residues: 1-188 < RES>
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A;Accession: JU0451
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A; Residues: 1-188 < ARG>
                                                                                                                                                                                                                                                                                R;Finver, S.N.; Nishikura, K.; Finger, L.R.; Haluska, F.G.; Finan, J.; Nowell, P.C.; Proc. Natl. Acad. Sci. U.S.A. 85, 3052-3056, 1988
A;Title: Sequence analysis of the MYC oncogene involved in the t(8;14)(q24;q11) chrom A;Reference number: 159116; MUID:88203638
                                                                                                                                                                                                                                                                                                                                                                                 myc protein - human
C:Species: Homo sapiens (man)
C:Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 05-Nov-1999
C:Accession: I59116
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A; Residues: 1-188 < RES>
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Best Local Similarity 72.7%;
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                                                                       Best Local Similarity
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13 PNAPYLPSCLE 23
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                                                                       Score 48; DB 2; Length 188 
Pred. No. 3.8;
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22 PGRPWLPSCLE 32

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A:Description: apoptotic suppressor C:Superfamily: RING finger homology C:Keywords: apoptosis; zinc finger
                                                                                                                                                                                                             R;Liston, P.; Roy, N.; Tamai, K.; Lefebvre, C.; Baird, S.; Cherton-Horvat, G.; Farahani. Nature 379, 349-353, 1996
A;Title: Suppression of apoptosis in mammalian cells by NAIP and a related family of IA; A;Reference number: A58182; MUID:96149249
A;Accession: S68450
                                                                                                                                                                                                                                                                                                                                                                     apoptosis inhibitor hiap-2 - human C;Species: Homo sapiens (man) C;Date: 17-Jul-1998 #sequence_revision 17-Jul-1998 #text_change 21-Jul-2000
                                                                                                         A;Cross-references: EMBL:U45879; NID:g1184317; PIDN:AAC50372.1; PID:g1184318
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A; Residues: 1-618 <LIS>
                                                                                                 C; Function:
                                                                                                                                                                                             A;Status: nucleic acid sequence not shown
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A; Residues: 1-600 <STO>
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A; Residues: 1-188 <SHO>
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72.7%;
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Pred. No.
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Pred. No. 3.8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2; Length 600;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 188;
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Query Match
Best Local Similarity
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A; Molecule type: protein
A; Molecule type: protein
A; Molecule type: protein
A; Residues: 20-25, 'X', 27-28, 'X', 30-36, 'X', 38-39 <SHI>
C; Comment: This protein has essential roles in the regulation and coordination of ins lays a role during myoblast proliferation and differentiation, and is important in the C; Superfamily: insulin-like growth factor binding protein 1; thyroglobulin type I rep C; Keywords: differentiation; growth factor; skeletal muscle F; 1-19/Domain: signal sequence #status predicted <SIG> F; 20-271/Product: insulin-like growth factor binding protein-5 #status experimental <
F;191-262/Domain: thyroglobulin type I repeat homology <THY1>
                                                                                                                                                                                                                                                                                 R;Shimasaki, S.; Gao, L.; Shimonaka, M.; Ling, N.
Mol. Endocrinol. 5, 938-948, 1991
A;Title: Isolation and molecular cloning of insulin-like growth factor-binding protei A;Reference number: A23734; MUID:92049376
A;Accession: G23734
                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GB:U41340; NID:g1173906; PIDN:AAA87859.1; PID:g1173907 A;Experimental source: skeletal muscle R;Shimasaki, S.; Gao, L.; Shimonaka, M.; Ling, N.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Accession: JC4584; G23734
R;White, M.E.; Diao, R.; Hathaway, M.R.; Mickelson, J.; Dayton, W.R.
Biochem. Biophys. Res. Commun. 218, 248-253, 1996
A;Title: Molecular cloning and sequence analysis of the porcine insulin-like growth f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   insulin-like growth factor binding protein-5 precursor - pig
C:Species: Sus scrofa domestica (domestic pig)
C:Date: 10-Apr-1996 fsequence_revision 24-May-1996 #text_change 05-Nov-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: mRNA
A; Residues: 1-271 <WHI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           В
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Reference number: JC4584; MUID:96136309
A;Accession: JC4584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Note: A189R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A:Cross-references: EMBL:U42580; NID:g4028896; PIDN:AAC96557.1
A:Experimental source: specific host Chlorella strain NC64A
C:Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-778 <GRA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              submitted to the EMBL Data Library, May 1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       proline-rich protein A189R - Chlorella virus PBCV-1
C:Species: Chlorella virus PBCV-1
C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 15-Oct-1999
C:Accession: T17679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: Z18806
A; Accession: T17679
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
8; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              170 PKQSASGSAGLFKNRPF 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         236 AMSEHRRHFPNCPFLENSLE 255
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Pred. No. 17;
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Score 47; Pred. No.

DB

Length 271;

B 8 Search completed: April 11, 2001, 14:02:32 Job time: 527 sec Matches 9; Conservative 1; Mismatches 9; Indels 0; Gaps 0;

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OM protein - protein search, using sw model
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Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Perfect score:
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Gapop 10.0 , Gapext 0.5
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123
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1: /cgn2_6/ptodata/2/paa/PCTUS_COMB.pep:*
2: /cgn2_6/ptodata/2/paa/US06_COMB.pep:*
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11:
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            : /cgn2_6/ptcdata/2/paa/US08#_COMB.pep:*

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cgn2_6/ptodata/2/paa/US084_COMB.pep:*
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/cgn2_6/ptodata/2/paa/US080_COMB.pep:*
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/cgn2_6/ptodata/1/paa/US60_NEW_COMB.pep:*
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89.423 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Res
5 A U Z	Result No.
123 123 123	Score 123
100.0	Match 100.0
23 23 23	Match Length DB ID
15 15 15	DB 15
US-09-164-223-2 US-09-164-223-3 US-09-164-223-3 US-09-164-223-2	ID US-09-164-223-2
Sequence 2, Appli Sequence 3, Appli Sequence 2, Appli	Description Sequence 2, Appli
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111 112 113 114 115 116 117 117 117 117 117 117 117 117 117	6 7 8 10
123 123 123 123 123 123 123 123 123 123	123 123 123 123 123
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a 320, 7	Appl Appl Appl Appl Appl Appl

ALIGNMENTS

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RESULT 1
US-09-164-223-2
  B
                                                                                                                                                                      ; ORGANISM: Homo sapiens US-09-164-223-2
                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/09164223
GENERAL INFORMATION: Alexander
APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY
FILE REFERENCE: 210121.465
                                                                                                                                                                                                                      CURRENT APPLICATION UNMER: US/09/164,223
CURRENT FILING DATE: 1998-09-30
NUMBER OF SEQ ID NOS: 320
SOFTWARE: PATENTIN VEr. 2.0
SEQ ID NO 2
LENGTH: 23
                                                                            Matches
                                                                                                              Query Match
                                                                                                                                                                                                            TYPE: PRT
                                                                      Match 100.0%; Score 123; DB 15; Local Similarity 100.0%; Pred. No. 3.6e-11; es 23; Conservative 0; Mismatches 0;
                                    1 PSQASSGOARMFPNAPYLPSCLE 23
Length 23;
                                                                                  Indels
                                                                                    0;
                                                                                    Gaps
                                                                                    0;
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US-09-164-223-3
(Sequence 3, Application US/09164223A)
(SENERAL INFORMATION:
(APPLICANT: Gaiger, Alexander
(APPLICANT: Cheever, Martin A.
(TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY)
(FILE REFERENCE: 210121.465
(CURRENT APPLICATION NUMBER: US/09/164,223A)
(CURRENT EILING DATE: 1998-09-30)
(NUMBER OF SEQ ID NOS: 320)
US-09-164-223-3
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; Sequence 2, Application US/09164223A; GENERAL INFORMATION:
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                                   SEQ ID NO 3
LENGTH: 23
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/09/164,223A
CURRENT FILING DATE: 1998-09-30
NUMBER OF SEQ ID NOS: 320
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/164,223
CURRENT FILING DATE: 1998-09-30
NUMBER OF SEQ ID NOS: 320
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 3, Application US/09164223
GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY
FILE REFERENCE: 210121.465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
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Best Local Similarity
                                                                                              SOFTWARE: PatentIn Ver.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY
FILE REFERENCE: 210121.465
              ORGANISM: Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TYPE: PRT
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TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: Pa
SEQ ID NO 2
LENGTH: 23
TYPE: PRT
                                                               Matches
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Best Local Similarity
Matches 23; Conserv
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CURRENT APPLICATION NUMBER: US/09/164,223B
CURRENT FILING DATE: 1998-09-30
                                                                                                                                                        LENGTH: 23
TYPE: PRT
ORGANISM: Mus musculus
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CURRENT FILING DATE: 1998-09-30
NUMBER OF SEQ ID NOS: 320
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APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1 SPECIFIC IMMUNOTHERAPY
FILE REFERENCE: 210121.465
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100.0%; pr
                                                       100.0%; Score 123; DB 15; 100.0%; Pred. No. 3.6e-11; tive 0; Mismatches 0;
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Pred. No. 3.6e-11;
0; Mismatches 0;
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US-09-276-484-2
; Sequence 2, Application US/09276484
; GENERAL INFORMATION:
; APPLICANT: Gaiger, Alexander
; APPLICANT: Cheever, Martin A.

RESULT

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CURRENT APPLICATION NUMBER: US/09/276,484
CURRENT FILING DATE: 1999-03-25
NUMBER OF SEQ ID NOS: 326
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 3
SEQ ID NO 3
LENGTH: 23
TYPE: PRT
ORGANISM: Mus musculus
US-09-276-484-3
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US-09-276-484A-2
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GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1
TITLE OF INVENTION: SPECIFIC IMMUNOTHERAPY
FILE REFERENCE: 210121.465C1
                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITONS AND METHODS FOR WT1 SPECIFIC
TITLE OF INVENTION: IMMUNOTHERAPY
FILE REFERENCE: 210121.465C1
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Best Local Similarity 100.0%;
Matches 23; Conservative 0;
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TITLE OF INVENTION: SPECIFIC IMMUNOTHERAPY
FILLE REFERENCE: 210121.465C1
CURRENT APPLICATION NUMBER: US/09/276,484
CURRENT FILING DATE: 1999-03-25
NUMBER OF SEQ ID NOS: 326
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                                                                              SEQ ID NO 2
                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/276,484A CURRENT FILING DATE: 1999-03-25 PRIOR APPLICATION NUMBER: US 09/164,223 PRIOR FILING DATE: 1999-09-30
                                                                                                   NUMBER OF SEQ ID NOS: 326
SOFTWARE: FastSEQ for Windows Version 4.0
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                  ORGANISM: Homo sapien
                                                        LENGTH: 23
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Pred. No. 3.6e-11;
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Sequence 2, Application US/09523419
GENERAL INFORMATION:
APPLICANT: Hendrickson, Ronald C.
APPLICANT: Probst, Peter
APPLICANT: Probst, Peter
APPLICANT: Reed, Steven G.
TITLE OF INVENTION: METHODS FOR THE DIAGNOSTS AND THERAPY
TITLE OF INVENTION: OF CHLAMYDIA INFECTION
FILE REFERENCE: 210121.492
CURRENT APPLICATION NUMBER: US/09/523,419
CURRENT PILING DATE: 2000-03-10
NUMBER OF SEQ ID NOS: 326
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 23
TYPE: PRT
ORGANISM: Homo sapien
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US-09-276-484A-3
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APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A.
TITLE OF INVENTION: COMPOSITONS AND METHODS FOR WT1 SPECIFIC
TITLE OF INVENTION: IMMUNOTHERAPY
FILE REFERENCE: 210121.465C1
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Best Local Similarity
Matches 23; Conserv
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SEQ ID NO 3
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Best Local Similarity
Matches 23; Conserv
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Best Local :
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                                                                     100.0%; Score 123; DB 19; ilarity 100.0%; Pred. No. 3.6e-11; Conservative 0; Mismatches 0;
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RESULT 12 US-09-523-419-3

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Sequence 3, Application US/09679339
GENERAL INFORMATION:
APPLICANT: Skeiky, Yasir
APPLICANT: Xu, Jiangchun
APPLICANT: Xu, Jiangchun
APPLICANT: Red, Steven G,
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1
TITLE OF INVENTION: SPECIFIC IMMUNOTHERAPY
FILE RETERBENCE: 2101121.533
CURRENT APPLICATION NUMBER: US/09/679,339
CURRENT FILING DATE: 2000-10-04
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; TYPE: PRT
; ORGANISM: Mus musculus
US-09-523-419-3
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SEQ ID NO 2
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Best Local Similarity
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Best Local Similarity
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1
TITLE OF INVENTION: SPECIFIC IMMUNOTHERAPY
FILE REFERENCE: 210121.533
CURRENT APPLICATION NUMBER: US/09/679,339
CURRENT FILING DATE: 2000-10-04
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        NUMBER OF
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CURRENT FILING DATE: 2000-03-10
NUMBER OF SEQ ID NOS: 326
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Hendrickson, Ronald C. APPLICANT: Probst, Peter APPLICANT: Reed, Steven G.
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Xu, Jiangchun
Cheever, Martin
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Pred. No. 3.6e-11;
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Pred. No. 3.6e-11;
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; NUMBER OF SEQ ID NOS: 3; SOFTWARE: FastSEQ for W. SEQ ID NO 2; SEQ ID NO 2; LENGTH: 23; LENGTH: 23; TYPE: PRT; ORGANISM: Homo sapien US-09-684-361-2
Search completed: April 11, 2001, 14:03:16 Job time: 512 sec
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US-09-684-361-2
US-09-684-361-2
; Sequence 2, Application US/09684361
; GENERAL INFORMATION:
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LENGTH: 23
TYPE: PRT
ORGANISM: Mus musculus
US-09-679-339-3
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Best Local :
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                 CURRENT FILING DATE: 2000-10-06
                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Gaiger, Alexander
APPLICANT: Cheever, Martin A
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR WT1
TITLE OF INVENTION: SPECIFIC IMMUNOTHERAPY
                                                                                                                                                                                                                                                                                                                                                                                      FILE REFERENCE:
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Copyright (c) 1993 - 2000 Comp
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/cgn2_6/ptodata/2/iaa/5A_COMB.pep:*
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US-08-102-942A-5
US-08-234-783-2
US-08-456-907-2
PCT-US95-05523-2
US-08-456-907-4
PCT-US95-05523-4
US-08-102-942A-6
US-08-102-942A-6
PCT-US95-05922A-2
US-08-102-942A-6
PCT-US95-05922A-2
US-08-1011-485-8
US-09-212-971-8
US-08-611-485-8
US-09-212-971-8
US-08-612860-2
US-08-68-12860-2
US-08-698-551-6
US-08-698-551-6
US-08-698-511-865-6
US-08-839-031A-6
PCT-US95-11724-6
PCT-US95-11724-6
PCT-US95-128-8
US-08-698-551-8
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and Characteri Gene aith & Reynolds. 0, Version #1 ,942A	8-533-901B-8 8-839-032A-8 98-839-031A-8 10592-01196-4 US95-12724-8 2177-5 8-520-933-3 217-2 318-208-008C-14 5643-3 217-49-001-3 07-749-001-5 08-154-198-3 08-154-198-3 08-154-198-3 08-463-335-3 08-463-335-3
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Patent No.
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TELEFAX: 215-540-5818
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY AGENT INFORMATION:
NAME: Bak, Mary E.
REGISTRATION NUMBER: 31,215
REFERENCE/DOCKET NUMBER: WST4
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-540-9200
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                               APPLICANT: Rodeck, Ulrich
TITLE OF INVENTION: WT1 MC
TITLE OF INVENTION: Use Th
                                                                                      APPLICANT: Herlyn, Meenhard
APPLICANT: Morris, Jennifer
APPLICANT: Rauscher III, Fra
APPLICANT: Rodeck, Ulrich
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MEDIUM TYPE: Floppy disk
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APPLICANT: Morris, Jennifer
APPLICANT: Rauscher III, Frank J.
APPLICANT: Rodeck, Ulrich
TITLE OF INVENTION: WTl Monoclonal Antibodies and Methods
TITLE OF INVENTION: Use Therefor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                         128 PSQASSGQARMFPNAPYLPSCLE 150
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ADDRESSEE: Howson and Howson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Release #1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Spring House
STATE: Pennsylvania
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: US/08/234,783
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                 \ensuremath{\mathsf{WT1}} Monoclonal Antibodies and Methods of Use Therefor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 123; DB 1; Length 210; 100.0%; Pred. No. 7.6e-12; tive 0; Mismatches 0; Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; MOLECULE TYPE: protein US-08-456-907-2
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APPLICANT: The Winner The Winner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEPHONE: 215-540-920
TELEPAX: 215-540-5818
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
ELENGTH: 210 amino acid
                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 28 APR-1994
FILING DATE: 28-APR-1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: The Wistar Institute of Anatomy and Biology TITLE OF INVENTION: WTl Monoclonal Antibodies and TITLE OF INVENTION: Methods of Use Therefor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE/DOCKET NUMBER: WS
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-540-9200
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APPLICATION NUMBER: US 08/234,783
FILING DATE: 28-APR-1994
ATTORNEY/AGENT INFORMATION:
NAME: Bak, Mary E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                               COMPUTER: IBM PC COMpatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
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                                                                                                                   CLASSIFICATION:
                                                                                                                                                FILING DATE:
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                                                                                                                                                                 APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                     STREET: Spring House Corporate Cntr, PO Box 457
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GY: linear
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SYSTEM: PC-DOS/MS-DOS
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                                                   US 08/234,783
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DB 1; Length 210; Indels

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PCT-US95-05523-2
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US-08-102-942A-2
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Best Local Similarity
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INFORMATION FOR SEQ ID NO: 2:
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                                                                                                            TELEFAX: 617-861-9540 INFORMATION FOR SEQ ID NO: 2:
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TELEPHONE: 215-540-9200
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: MIT-5194A2
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                   MOLECULE TYPE: protein
                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: 617-861-6240
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                                                                                         SEQUENCE CHARACTERISTICS
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TELEPHONE: Z15-540-5818
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/102,942A FILING DATE: 02-AUG-1993 CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STREET: Two Mili
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: amino acid
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                                  TYPE: amino acid TOPOLOGY: linear
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                                                                         LENGTH:
                                                                                                                                               TELEPHONE:
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                                                                     345 amino acids
                                                                                                                             617-861-9540
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Rose, Elise A.
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Buckler, Alan J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bruening, Wendy
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Call, Katherine M
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Housman, David E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%; Score 123; DB 4; 100.0%; Pred. No. 7.6e-12;
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                                                                                                   ; Sequence 4, Application US/08456907
; Patent No. 5633142
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                                                                                                                                                           RESULT
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Best Local Similarity
Matches 23; Conserv
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                                                                                                                                                                                                                                                                                  Matches
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                                                                 GENERAL INFORMATION:
APPLICANT: Herlyn,
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INFORMATION FOR SEQ ID NO: 4:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Herlyn, Meenhard
APPLICANT: Morris, Jennifer
APPLICANT: Rauscher III, Fra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOTTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy
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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS:
                               APPLICANT:
TITLE OF INVENTION:
                APPLICANT:
                                                                                                                                                                                                             117 PSQASSGQARMEPNAPYLPSCLE 139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Bak, Mary E. REGISTRATION NUMBER:
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                                                                                                                                                                                                                                1 PSQASSGQARMFPNAPYLPSCLE 23
                                                                                                                                                                                                                                                                                                                                                                                                                                            LENGTH:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Spring House
                                                                                                                                                                                                                                                                                                                                                                                                                             amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                               429 amino acids
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                Rodeck, Ulrich
                                 Rauscher III, Frank J.
                                                    Morris, Jennifer
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                                                                 Herlyn, Meenhard
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                                                                                                                                                                                                                                                                                  100.0%; Score 123; DB 1; 100.0%; Pred. No. 1.7e-11; tive 0; Mismatches 0;
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WT1 Monoclonal Antibodies and Methods of
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INFORMATION FOR SEQ ID NO: 4:
                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 28-APR-1994
                                                                                                                                                                                                                      COMPUTER READABLE FORM:
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                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
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APPLICATION NUMBER: US 08/234,783
FILING DATE: 28-APR-1994
ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                                                             STREET: Spring House
                                                              CLASSIFICATION:
                                                                                                                                                                                                                                                           COUNTRY:
                                                                                   FILING DATE
                                                                                               APPLICATION NUMBER:
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TYPE: amino acid
TOPOLOGY: linear
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REFERENCE/DOCKET NUMBER: WST
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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Spring House Corporate Cntr, PO Box 457
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              US 08/234,783
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US-08-102-942A-4
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Best Local Similarity
                                                                                        TELEFAX: 617-861-9540 INFORMATION FOR SEQ ID NO:
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TELEFAX: 215-540-5818
INFORMATION FOR SEQ ID NO: 4:
           MOLECULE TYPE: protein
                                                       SEQUENCE CHARACTERISTICS:
LENGTH: 449 amino acid
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APPLICANT:
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MEDIUM TYPE: Floppy disk
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                            TOPOLOGY:
                                             TYPE:
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                                                                                                                                                     REFERENCE/DOCKET NUMBER:
                                                                                                                                                                      NAME: Granahan, Patricia REGISTRATION NUMBER: 32,
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                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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REFERENCE/DOCKET NUMBER: WS'
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Two Militia Drive
                                                     449 amino acids
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Haber, Daniel A.
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                                                                                                                        617-861-6240
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N: 530
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BER: MIT-5194A2
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Best Local S
RESULT 11
PCT-US95-05922A-2
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                                                                                                                                                                   Query Match
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INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 449 amino acids
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APPLICANT:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/102,942A
FILING DATE: 02-AUG-1993
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MEDIUM TYPE: Floppy disk
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TELEPHONE: 617-861-6240
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                                                                                                                                                                                                                                            TOPOLOGY: linear
MOLECULE TYPE: protein
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                                                                                                                                                      Local Similarity
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Haber, Daniel A.
Rose, Elise A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Glaser, Thomas M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Call, Katherine M.
                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ito,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Caryn Y.
                                                                                                                                                                                                                                                                          not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Patricia
                                                                                                                                                        100.0%; Score 123; DB 1; Length 449; 100.0%; Pred. No. 1.8e-11;
                                                                                                                                         0; Mismatches
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RESULT 12
US-08-511-485-8
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                                                                                                                                                                                                                                                                                                                         Sequence 8, Application US/08511485 Patent No. 5919912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TITLE OF INVENTION: Human Inhibitor of Apoptosis Gene 1 NUMBER OF SEQUENCES: 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       KEGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 32:
TELECOMMUNICATION INFORMATION:
TELEBRINGE: 701-701
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: FERRARO, GREGORY D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
COUNTRY: USA
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LBM PC compatible
COMPUTER: SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                     APPLICANT: Korneluk, Robert G.
APPLICANT: Mackenzie, Alexande
APPLICANT: Baird, Stephen
                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson P.C
STREET: 225 Franklin Street
                                                                                                                                                                                                   TITLE OF INVENTION: MAMMALIAN TAP GENE FAMILY, PK
TITLE OF INVENTION: PROBES, AND DETECTION METHODS
NUMBER OF SEQUENCES: 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY: ROSELAND
STATE: NEW JERSEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN ADDRESSEE: CECCHI, STEWART & OLSTEIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CLASSIFICATION:
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Local Similarity 50.0%;
es 10; Conservation
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                                                                                                                                   STREET: 225
CITY: Boston
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                                                                                                                  STATE:
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                                                                                                                                                                                                                                        MAMMALIAN IAP GENE FAMILY, PRIMERS
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Gaps

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; TYPE: PRT; ORGANISM: Homo sapiens US-09-212-971-8
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                                                                         Matches
                                                                                                        Query Match
                                                                                                                                                                                                                        SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: 8: SEQUENCE CHARACTERISTICS: LENGTH: 618 aming
                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: DEFECTION AND MODULATION OF IAPS AND TITLE OF INVENTION: NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERATIVE FILE REFERENCE: 07891/099002 CURRENT APPLICATION NUMBER: US/09/212,971B CURRENT FILING DATE: 1998-12-16 EARLIER APPLICATION NUMBER: 60/017,354 EARLIER FILING DATE: 1996-04-26 EARLIER APPLICATION NUMBER: 60/30,590 EARLIER APPLICATION NUMBER: 60/30,590 EARLIER TILING DATE: 1996-01-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 8, Application US/09212971B Patent No. 6107041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Liston, Peter
APPLICANT: Baird, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
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                                                                                                                                                                                                                                                           NUMBER OF SEQ ID NOS: 17
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                                                                                                                                                                                                                                                                        EARLIER APPLICATION NUMBER: 08/800,929
EARLIER FILING DATE: 1997-02-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Korneluk, Robert G
APPLICANT: MacKenzie, Alexander E
                                                                                                                                                                                                             LENGTH: 618
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STANDEDNESS: no+
TOPOLOGY: h-
S1."
236 AMSEHRRHFPNCPFLENSLE 255
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 07540/002001
                                                                       Local Similarity
les 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
                               4 ASSGQARMFPNAPYLPSCLE 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              INFORMATION:
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                                                                     Conservative
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04-AUG-1995
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                                                                                39.0%;
                                                                   2;
                                                                             Score 48; DB 3; Length 618; Pred. No. 10;
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                                                                  Mismatches
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PCT-US96-12860-2
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                                Sequence 2, Application PC/TUS9612860
GEMERAL INFORMATION:
GEMERAL TOTAL TULLARIK, INC.
TITLE OF INVENTION: INHIBITORS OF APOPTOSIS
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-800-929A-8
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CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/030,590
FILING DATE: 14-NOV-1996
APPLICATION NUMBER: 60/017,354
PTITING DATE: 26-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Sequence 8, Application US/08800929A
; Patent No. 6133437
                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Korneluk, Robert G
APPLICANT: MacKenzie, Alexander
APPLICANT: Liston, Peter
APPLICANT: Bard, Stephen
APPLICANT: Tsang, Benjamin K
APPLICANT: Pratt, Christine
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NAME: Bieker-Brady, Kristina REGISTRATION NUMBER: REFERENCE/DOCKET NUMBER: 078: TELECOMMUNICATION INFORMATION: TELEPHONE: 617-428-0200
                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                               236 AMSEHRRHFPNCPFLENSLE 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: DETECTION AND MODULATION OF TITLE OF INVENTION: IABS AND NAIP FOR THE DIAGNOSIS AND TREATMENT OF PROLIFERAT TITLE OF INVENTION: DISEASE
              STREET:
                           ADDRESSEE:
                                                                                                                                                                                                                                                                                      Local Similarity
nes 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
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                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
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CITY: B
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3: FLEHR, HOHBACH, TEST, ALBRITTON & HERBERT 4 Embarcadero Center, Suite 3400
                                                                                                                                                                                                                                                                                     Conservative
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Pred. No. 10;
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COMPUTER READABLE FORM:
MEDJUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATEL
COMPUTER: DATA:
COMPUTER: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/12860
FILING DATE: 06 AUG 1996
CLASSIFICATION DATA:
APPLICATION NUMBER: U.S. Serial Nos. 08/512,946 & 08/569,749
CLASSIFICATION NUMBER: U.S. Serial Nos. 08/512,946 & 08/569,749
CLASSIFICATION NUMBER: U.S. Serial Nos. 08/512,946 & 08/569,749
CLASSIFICATION NUMBER: A-62464/DJB
REGISTRATION NUMBER: A-62464/DJB
REFERENCE/DOCKET NUMBER: A-62464/DJB
REFERENCE/DOCKET NUMBER: A-62464/DJB
REFERENCE/DOCKET NUMBER: B-62464/DJB
RELECOMMUNICATION INFORMATION:
TELEPAN: (415)398-1249
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 618 amino acids
TYPE: amino acids
Search completed: April 11, 2001, 14:02:12 Job time: 517 sec
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                                                                                                                                                                                                                                                                  Query Match 39.0%; Score 48; DB 4; Length 618; Best Local Similarity 50.0%; Pred. No. 10; Matches 10; Conservative 2; Mismatches 8; Indels
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STATE: California
COUNTRY: USA
ZIP: 94111
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OM protein - protein search, using sw model
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Maximum DB seq length: 2000000000
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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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123	123	123	123	123	123	123	123	123	123	123	123	Score	
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449	449	449	449	429	345	345	210	210	154	23	23	Length DB	
21	21	21	19	16	19	12	18	16	19	21	21	BB	
Y80196	Y98805	Y98804	W47176	R85065	W47173	R12240	W22883	R85066	W47175	Y98503	Y98502	ID	
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derived derived derived derived lan cytot derived larived larived derived larived lari	Human Wilms' tumou WT1 related peptid

ALIGNMENTS

Y98502 RESULT

Y98502 standard; Peptide; 23 AA.

Tq Tq XX	DR DR	PIX	PA PA	יי גע	XX PF	YX XX	XX	SOS	X X X X X X X X X X X X X X X X X X X	XX DE X	D X	AC X
Novel polypeptides comprising an immunogenic portion of a native WTl polypeptide, useful for inhibiting the development of malignant diseases associated with WTl expression e.g. leukemia or cancer	WPI; 2000-293107/25.	Gaiger A, Cheever M;	(GORI-) CORIXA CORP. (GAIG/) GAIGER A.	25-MAR-1999; 9905-0276484.	30-SEP-1999; 99W0-0522015.		WO200018795-A2.	Homo sapiens.	WT1; immunotherapy; immunogenic; malignant disease; which response; metastatic disease; mouse; human; Wilm's tumour; immune response; vaccine.	Human WT1 peptide SEQ ID NO:2.	31-JUL-2000 (first entry)	Y98502;

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YXX DR XXX PT PT PT PT XXX
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Y98503
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The present invention describes polypeptides (I) comprising an immunogenic portion of a native Wilm's Tumour gene product polypeptide, CC WT1, (or variants of the immunogenic portion retaining the ability to creact with WT1-specific antisera and/or T-cell lines or clones) and CC comprising 16 consecutive amino acids (aa) or less of a native WT1 cCC manufacture medicaments for enhancing/inducing an immune response in CC with a carrier/excipient in pharmaceutical compositions or with a carrier/excipient in pharmaceutical compositions or with a cCC composition and vaccines enhancer (e.g. an adjuvant or enhancer CC compositions and vaccines can be administered to human patients to CC enhance or induce an immune response specific for WT1 or a cell centrace or induce an immune response specific for WT1 or a cell centrace or induce an immune response specific for WT1 or a cell compositions and vaccines can be administered to human patients to CC enhance or induce an immune response specific for WT1 or a cell centrace or induce an immune response of the development of malignant diseases composition with WT1 expression, e.g. leukemia (especially acute/chronic meladous) thereof the content lung, thyroid or gastrointestinal cancer, or a melanoma). Y98501 cc y98811 represent polypeptide sequences, and A13848 to A13862 represent xx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
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                                Novel polypeptides comprising an immunogenic portion of a native WT1 polypeptide, useful for inhibiting the development of malignant diseases associated with WT1 expression e.g. leukemia or cancer -
       Example 3; Page 46; 193pp; English
                                                                                                                                                 Gaiger A, Cheever M;
                                                                                                                WPI; 2000-293107/25.
                                                                                                                                                                                                                                      30-SEP-1998;
25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus.
                                                                                                                                                                                     (GAIG/)
                                                                                                                                                                                                                                                                                        30-SEP-1999;
                                                                                                                                                                                                                                                                                                                           06-APR-2000
                                                                                                                                                                                                                                                                                                                                                             WO200018795-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                WT1; immunotherapy; immunogenic; malignant disease; cancer; leukaemia; metastatic disease; mouse; human; Wilm's tumour; immune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mouse WT1 peptide SEQ ID NO: 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-JUL-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Y98503 standard; Peptide; 23 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 4; Page 46; 193pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 PSQASSGQARMFPNAPYLPSCLE 23
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                                                                                                                                                                                 CORIXA CORP. GAIGER A.
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                                                                                                                                                                                                                                    98US-0164223.
99US-0276484.
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Pred. No. 1.5e~13;
D; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local
                                                                       Claim 2; Fig 4; 42pp; English.
                                                                                                                New Wilms' tumour polypeptide - useful for, e.g. cancer treatment
                                                                                                         and antibody production
                                                                                                                                                          WPI; 1998-192828/17.
                                                                                                                                                                                                                                      (MASI ) MASSACHUSETTS INST TECHNOLOGY.
                                                                                                                                                                                                                                                                                          02-AUG-1993;
13-NOV-1989;
                                                                                                                                                                                             Haber DA,
                                                                                                                                                                                                           Bruening W,
                                                                                                                                                                                                                                                                                                                                             02-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Wilms' tumour polypeptide (WT33) proline and glutamine rich region.
                                                                                                                                                                                                                                                                              13-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                              10-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                           US5726288-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wilms' tumour; WT33; cancer treatment; antibody production; WAGR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-1998 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W47175 standard; Protein; 154 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Denys-drash syndrome; WT1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W47175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to Y98811 represent polypeptide sequences, and A13848 to A13862 rePCR primers, used in the exemplification of the present invention
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                                                                                                                                                                                         Housman DE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23 AA;
                                                                                                                                                                                                           Buckler AJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                         93US-0102942
89US-0435780
                                                                                                                                                                                                                                                                           90US-0614161.
                                                                                                                                                                                                                                                                                                                                           93US-0102942
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                         Ito CY,
                                                                                                                                                                      Call KM, Darver, CY, Pelletier J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 123; DB 21;
Pred. No. 1.5e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                    Darveau A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                       Glaser TM;
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This sequence represents the proline and glutamine rich region of a new Wilms' tumour (WT33) polypeptide. The Wilms' tumour gene (WT1) is associated with 11p3 locus on the human chromosome. This proline and glutamine rich region indicates that the Wilms' tumour polypeptide has

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a role in transcription regulation. The polypeptide or immunogenic fragments of the polypeptide can be used to treat cancerous or precancerous conditions (especially Wilms' tumour), or to raise antibodies for diagnostic use. The product allow detection of risk of development of Wilms' tumour, e.g. in diseases such as WAGR and penys-brash syndrome, to be assessed prior to current methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wilms'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wilms'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   R85066;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R85066 standard; Protein; 210 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chimeric Homo sapiens;.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chimeric synthetic
                                                                                                                                    Monoclonal antibodies specific for Wilms' tumour protein antigen WT1 - useful for detecting, monitoring and diagnosing malignancies characterised by expression of WT1 protein, e.g. leukaemia
                                                                                                                                                                                                                                                                                                                                                                          WO9529995-A1
                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                           Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptide
                                       Wilms' tumor antigen WT1-6F (R85066) is based on amino acids 1-181 of the native sequence, plus additional N- and C-terminal sequences, and is encoded by synthetic DNA (T02462) optimized for expression in E. coli. WT1-6F is used to raise monoclonal
                                                                                                                                                                                             N-PSDB; T02462
                                                                                                                                                                                                                                   Herlyn M, Morris J,
                                                                                                                                                                                                                                                             (WIST-) WISTAR INST ANATOMY & BIOLOGY.
                                                                                                                                                                                                                                                                                        28-APR-1994;
                                                                                                                                                                                                                                                                                                                    25-APR-1995;
                                                                                                             Example 1; Page 37-38; 54pp; English.
                           antibodies specific for WT1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31 psqassgqarmfpnapylpscle 53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 PSQASSGQARMEPNAPYLPSCLE 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumour; WT1-6F; monoclonal antibody; leukaemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tumour antigen WT1-6F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          154 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                          94US-0234783.
                                                                                                                                                                                                                                                                                                                     95WO-US05523
                                                                                                                                                                                                                                                                                                                                                                                                                   193.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "hexa-histidine peptide used to facilitate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /label= Histidine_fusion_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                              /label= WT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 123; DB 19; 100.0%; Pred. No. 1.3e-12; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                    . 219
                                                                                                                                                                                                                                     Rauscher FJ, Rodeck U;
                                                                                                                                                                                                                                                                                                                                                                                                     "vector-derived amino acids"
                                                                                                                                                                                                                                                                                                                                                                                                                                                       fusion protein purification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 154;
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Sequence

Sequence

210 AA;

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RESULT
W22883
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRXXX PRRXX PRXXX PRXX PRXXX P
Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             W22883;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W22883 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Wilms' tumour; WT1; antigen; WT1-6F; monoclonal; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wilms' tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-SEP-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnosis; mesothelioma; prostate; ovarian; cancer; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128 psqassgqarmfpnapylpscle 150
                                                                        The present sequence is the Wilms' tumour protein antigen WT1-6F, which comprises amino acids 1-181 of the Wilms' tumour l antigen (WT1) protein. WT1-6F can be used to raise monoclonal antibodies (MAb), e.g. H2, H7 and/or H17, which are secreted by the hybridoma cell lines ATCC 11598, 11599 and 11600. The MAb can be used to diagnose mesothelioma, prostate cancer, ovarian cancer or leukaemia by binding an antigen in a whole blood, serum, plasma synovial fluid or tissue sample, or monitor therapy in leukaemia patients by binding an antigen in a whole blood, plasma, serum, urine or bone marrow sample, indicating the presence of active
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US5633142-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   leukemia.
                                                                                                                                                                                                                                                                                                                                                                                                                                     Diagnosis of mesothelioma and monitoring of leukaemia therapy using monoclonal antibodies against Wilms' tumour 1 antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Herlyn M, Morris J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-APR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                Example 1; Columns 17-20; 21pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-PSDB; T75529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-297358/27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (WIST-) WISTAR INST ANATOMY & BIOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                       leukaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 PSQASSGQARMFPNAPYLPSCLE
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                                                          cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein antigen WT1-6F
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         94US-0234783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94US-0234783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                95US-0456907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein; 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "amino acids 1-181 of WT1 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12..192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "histidine fusion peptide to facilitate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%; Score 123; DB 16;
100.0%; Pred. No. 1.9e-12;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rauscher FJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "vector sequences added during cloning"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  purification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rodeck U;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
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                                    Matches
                                                         Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                       Sequence
                                                                                                                This polypeptide is encoded by the Wilm's tumour (WT) gene which maps to the 11p13 locus of human chromosome 11. It contains 4 zinc finger binding domains and a proline/Jultamine rich region and hence is thought to be involved in transcription regulation. Using this WT protein and the DNA, probes and antibodies can be developed for diagnosing WT. Lesions similar to WT may also
                                                                                                                                                                                                Disclosure; fig 3; 67pp; English.
                                                                                                              be detected.
                                                                                                                                                                                                                Nucleotide sequence of human chromosome 11 band 13 Wilm's tumour locus – used to diagnose, quantify and treat Wilm's tumours
                                                                                                                                                                                                                                                          N-PSDB; Q12020
                                                                                                                                                                                                                                                                  WPI; 1991-178117/24.
                                                                                                                                                                                                                                                                                                      Call KM
                                                                                                                                                                                                                                                                                                                                                13-NOV-1989;
                                                                                                                                                                                                                                                                                                                                                                    13-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                                          30-MAY-1991
                                                                                                                                                                                                                                                                                                                                                                                                               WO9107509-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                               Domain
                                                                                                                                                                                                                                                                                                                      (MASI ) MASSACHUSETTS INST TECH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wilm's tumour; monoclonal antibodies.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Wilm's tumour gene prod
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-AUG-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R12240;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R12240 standard; Protein;
                                  Local Similarity es 23; Conserv
           1 PSQASSGQARMFPNAPYLPSCLE 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128 psqassgqarmfpnapylpscle 150
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23;
                                                                                                                                                                                                                                                                                                Glaser TM,
                                                                                        345 AA;
                               100.0%; Score 123; DB 12; ilarity 100.0%; Pred. No. 3.3e-12; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                        Rose EA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                            89US-0435780
                                                                                                                                                                                                                                                                                                                                                                 90WO-US06629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /label= zinc finger domain 2
247..276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= zinc finger domain 1
227..246
                                                                                                                                                                                                                                                                                                                                                                                                                              /label= zinc finger domain 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                     /label= zinc finger domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /label= proline/glutamine rich region
216..226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                       Ito CY, E
Housman DE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   . 276
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             345 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 123; DB 18;
Pred. No. 1.9e-12;
; Mismatches 0;
                                                                                                                                                                                                                                                                                              Buckler AJ, Pelletier J;
                              0;
                                                   Length 345;
                             Indels
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R85065 standard; Protein; 429 AA.

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Вb
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                                                                                Matches
                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                 This is a new Wilms' tumour (WT33) polypeptide. The Wilms' tumour gene (WT1) is associated with 1193 locus on the human chromosome. This indicating that it has a role in transcription regulation. The polypeptide or immunogenic fragments of the polypeptide can be used to treat cancerous or precancerous conditions (especially Wilms' tumour), cto raise antibodies for diagnostic use. The product allow detection of penys-Drash syndrome, to be assessed prior to current methods of
                                                                                                                                        Sequence
                                                                                                                                                                detection
                                                                                                                                                                                                                                                                                            Claim 2; Fig 3; 42pp; English.
                                                                                                                                                                                                                                                                                                                     and antibody production
                                                                                                                                                                                                                                                                                                                        New Wilms' tumour polypeptide - useful for, e.g. cancer treatment
                                                                                                                                                                                                                                                                                                                                                                   WPI; 1998-192828/17.
                                                                                                                                                                                                                                                                                                                                                                                                     Bruening W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                02-AUG-1993;
13-NOV-1989;
                                                                                                                                                                                                                                                                                                                                                                                                                           (MASI ) MASSACHUSETTS INST TECHNOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     13-NOV-1990;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-MAR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US5726288-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wilms' tumour; WT33; cancer treatment; antibody production; WAGR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W47173 standard; Protein; 345
                              33 psqassgqarmfpnapylpscle 55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Denys-drash syndrome; WT1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Wilms'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-1998
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                                         1 PSQASSGQARMFPNAPYLPSCLE 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          33 psqassgqarmfpnapylpscle
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                                                                                23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumour polypeptide (WT33).
                                                                                                                                        345 AA;
                                                                                                                                                                                                                                                                                                                                                                                         Housman DE,
                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                 Buckler AJ, carr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    90US-0614161.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "proline and glutamine rich region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                      100.0%; Score 123; DB 19; 100.0%; Pred. No. 3.3e-12;
                                                                                                                                                                                                                                                                                                                                                                                                   Call KM,
                                                                             0;
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                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                      Pelletier J,
                                                                                                                                                                                                                                                                                                                                                                                                  Darveau A,
                                                                                                 DB 19;
                                                                           0;
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                                                                                                 Length 345;
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Best Local
                                                                                                                                                                                                                                                                                                                                                                 Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Wilms' tumour WT1 antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Monoclonal antibodies specific for Wilms' tumour protein antigen WT1 - useful for detecting, monitoring and diagnosing malignancies characterised by expression of WT1 protein, e.g. leukaemia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        02-FEB-1996 (first entry)
                               02-AUG-1993;
13-NOV-1989;
13-NOV-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                          The human Wilm's tumour antigen WT1 (sequence given in R85065) was used as the basis for the design of a synthetic WT1 sequence (see R85066) used to raise monoclonal antibodies specific for the antigen.
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                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 42-43; 54pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; R85065.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1995-393072/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Herlyn M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (WIST-) WISTAR INST ANATOMY & BIOLOGY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-APR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-APR-1995;
                                                                                                                                                                                                                                                                W47176 standard; Protein; 449
                                                                                                                      US5726288-A.
                                                                                                                                                                           Wilms' tumour; WT33; cancer treatment; antibody production; WAGR;
                                                                                                                                                                                                 Wilms'
                                                                                                                                                                                                                     01-JUN-1998 (first entry)
                                                                          02-AUG-1993;
                                                                                                10-MAR-1998
                                                                                                                                           Homo sapiens.
                                                                                                                                                                 Denys-drash syndrome; WT1.
                                                                                                                                                                                                                                                                                                                       117
           (MASI ) MASSACHUSETTS INST TECHNOLOGY
                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                               tumour polypeptide (WT1).
                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Morris J,
                                                                                                                                                                                                                                                                                                                                                                                                                       429 AA;
                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WT1; monoclonal antibody; leukaemia.
                               93US-0102942.
89US-0435780.
90US-0614161.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94US-0234783
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        95WO-US05523
                                                                           93US-0102942
                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 123; DB 16; 100.0%; Pred. No. 4.2e-12; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rauscher FJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Rodeck U;
                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                       Length 429;
                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                    0,
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Y98804
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (WT1) is associated with 11p3 locus on the human chromosome. The polypeptide or immunogenic fragments of the polypeptide can be used to treat cancerous or precancerous conditions (especially Wilms' tumour), of the antibodies for diagnostic use. The product allow detection of risk of development of Wilms' tumour, e.g. in diseases such as WAGR and Denys-Drash syndrome, to be assessed prior to current methods of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bruening W,
Haber DA, |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This is a Wilms' tumour (WT1) polypeptide. The Wilms' tumour gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Columns 39-42; 42pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and antibody production
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New Wilms' tumour polypeptide - useful for, e.g. cancer treatment
                                                                                                                                                                                                                                                                                                                                                                                                                                         31-JUL-2000 (first entry)
                                                                                  Novel polypeptides comprising an immunogenic portion of a native WT1 polypeptide, useful for inhibiting the development of malignant diseases associated with WT1 expression e.g. leukemia or cancer
                                                                                                                                                                                                                        30-SEP-1998;
25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                        WT1; immunotherapy;
                                                                                                                                                                                                                                                                                                                                                                                                             Human WT1 protein sequence SEQ ID NO:319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Y98804 standard; Protein; 449
                                                                                                                                                             Gaiger A,
                                                                                                                                                                                                                                                               30-SEP-1999;
                                                                                                                                                                                                                                                                                       06-APR-2000
                                                                                                                                                                                                                                                                                                               WO200018795-A2
                                                                                                                                                                                                                                                                                                                                        Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                           metastatic disease; mouse; human;
                                                            Disclosure; Page 190-191; 193pp; English.
                                                                                                                                    WPI; 2000-293107/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   117 psqassgqarmfpnapylpscle 139
                                                                                                                                                                                     (CORI-) CORIXA CO
(GAIG/) GAIGER A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
les 23; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 PSQASSGQARMFPNAPYLPSCLE 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Housman DE,
                                                                                                                                                              Cheever M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    449 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; ilarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Buckler AJ,
                                                                                                                                                                                                   CORP.
                                                                                                                                                                                                                            99US-0276484
                                                                                                                                                                                                                                       98US-0164223
                                                                                                                                                                                                                                                              99WO-US22819
                                                                                                                                                                                                                                                                                                                                                                                        immunogenic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ito CY,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Call KM, שמויכ
ביה רץ, Pelletier J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 123; DB 19;
Pred. No. 4.4e-12;
); Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                              malignant disease;
; Wilm's tumour; imr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Darveau A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rose EA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Glaser TM;
                                                                                                                                                                                                                                                                                                                                                                                immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 449;
                                                                                                                                                                                                                                                                                                                                                                                            cancer; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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The present invention describes polypeptides (I) comprising an immunogenic portion of a native Wilm's Tumour gene product polypeptide, WTl, (or variants of the immunogenic portion retaining the ability to react with WTl-specific antisera and/or T-cell lines or clones) and

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Y98805
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Best Local
           The present invention describes polypeptides (I) comprising an immunogenic portion of a native Wilm's Tumour gene product polypeptide, WT1, (or variants of the immunogenic portion retaining the ability to react with WT1-specific antisera and/or T-cell lines or clones) and comprising 16 consecutive amino acids (aa) or less of a native WT1 polypeptide. The polypeptides are useful therapeutically and to
     manufacture medicaments
                                                                                                                                                   Disclosure; Page 191-192; 193pp; English.
                                                                                                                                                                                  Novel polypeptides comprising an immunogenic portion of a native WT1 polypeptide, useful for inhibiting the development of malignant diseases associated with WT1 expression e.g. leukemia or cancer -
                                                                                                                                                                                                                                                                    WPI; 2000-293107/25.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 expressing WT1. useful to inhibit the development of malignant diseases associated with WT1 expression, e.g. leukemia (especially acute/chronic myeloid leukemia or acute lymphocytic leukemia) or cancer (especially breast, lung, thyroid or gastrointestinal cancer, or a melanoma). v98501 to y98811 represent polypeptide sequences, and A13848 to A13862 represent PCR primers, used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            comprising 16 consecutive amino acids (aa) or less of a native WT1 polypeptide. The polypeptides are useful therapeutically and to manufacture medicaments for enhancing/inducing an immune response in patients. The polypeptides, mimetics or polynucleotides can be included with a carrier/excipient in pharmaceutical compositions or with a non-specific immune response enhancer (e.g. an adjuvant or enhancer preferentially enhancing a T cell response) in vaccines. Pharmaceutical compositions and vaccines can be administered to human patients to enhance or induce an immune response specific for WT1 or a cell.
                                                                                                                                                                                                                                                                                                                                                                                                  30-SEP-1998;
25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            06-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200018795-A2
                                                                                                                                                                                                                                                                                                                                             (GAIG/) GAIGER A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WT1; immunotherapy; immunogenic; malignant disease; cancer; leuxa
metastatic disease; mouse; human; Wilm's tumour; immune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-JUL-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                             (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mouse WT1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Y98805 standard; Protein; 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    117 psqassgqarmfpnapylpscle 139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 PSQASSGQARMFPNAPYLPSCLE 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein sequence SEQ ID NO:320.
                                                                                                                                                                                                                                                                                                        Cheever M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                  98US-0164223
99US-0276484
                                                                                                                                                                                                                                                                                                                                                                                                                                                         99WO-US22819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunogenic; malignant disease; cancer; leukaemia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
for enhancing/inducing an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 123; DB 21;
Pred. No. 4.4e-12;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 449;
response
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RESULT 12
Y80196
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                         The present invention describes a cancer antigen containing the active component of Wilms' tumour suppressor gene WT1 product, or partial peptides, for cancer vaccines in treating leukaemia and solid tumours. The cancer antigens are useful for cancer vaccines in treating leukaemia, bone-marrow abnormal formation syndrome, malignant lymphoma, multiple myeloma, stomach cancer, cancer of the large intestine, lung cancer, breast cancer, blastoma, liver cancer, skin cancer, bladder cancer, prostate cancer, uterus cancer, cervical cancer, or ovary cancer. The present sequence represents the mouse Wilms' tumour
                               suppressor gene WT1 product.
                                                                                                                                                                                                                                       Claim 2; Page 38-40; 48pp; Japanese.
                                                                                                                                                                                                                                                                                        Cancer antigens based on Wilm's tumor suppressor gene WT1 product or peptide derivatives, for cancer vaccines in treating leukemia and solid
                                                                                                                                                                                                                                                                                                                                                                                               Sugiyama H,
                                                                                                                                                                                                                                                                                                                                                         WPI; 2000-195264/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        31-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Wilm's tumour suppressor gene; WT1; cancer; antigen; vaccine; MHC; major histocompatibility complex; leukaemia; tumour; antitumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  with a carrier/exciplent in pharmaceutical compositions or with a non-specific immune response enhancer (e.g. an adjuvant or enhancer preferentially enhancing a T cell response) in vaccines. Pharmaceutical compositions and vaccines can be administered to human patients to enhance or induce an immune response specific for WT1 or a cell expressing WT1, useful to inhibit the development of malignant diseases associated with WT1 expression, e.g. leukemia (especially acute/chronic myeloid leukemia or acute lymphorytic leukemia (especially acute/chronic
                                                                                                                                                                                                                                                                                                                                                                                                                                   (SUGI/) SUGIYAMA H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200006602-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mouse Wilms' tumour suppressor gene WT1 product SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24-MAY-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Y80196;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Y80196 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    myeloid leukemia or acute lymphocytic leukemia) or cancer (especially
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PCR primers, used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        patients. The polypeptides, mimetics or polynucleotides can be
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              breast,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           117 psqassgqarmfpnapylpscle 139
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         east, lung, thyroid or gastrointestinal cancer, or a melanoma). Y98501
Y98811 represent polypeptide sequences, and A13848 to A13862 represent
R primers, used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                            e.g. stomach cancer, skin cancer, lung cancer and breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23;
                                                                                                                                                                                                                                                                                                                                                                                               Oka Y;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98JP-0218093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-JP04130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein; 449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
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Pred. No. 4.4e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 449;
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Length

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                                                     RESULT 14
                                                                                                                                                   Matches
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Best Local :
                                                                                                                                                                  Query Match
Best Local
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                                                                                                                                                                                                                                                            The present invention describes a cancer antigen containing the active component of Wilms' tumour suppressor gene WT1 product, or partial peptides, for cancer vaccines in treating leukaemia and solid tumours. The cancer antigens are useful for cancer vaccines in treating leukaemia, bone-marrow abnormal formation syndrome, malignant lymphoma, multiple myeloma, stomach cancer, cancer of the large intestine, lung cancer, present cancer, uterus cancer, skin cancer, bladder cancer, prostate cancer, uterus cancer, cervical cancer, or ovary cancer. The present sequence represents the human Wilms' tumour
Y98810
                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                        Claim 2; Page 40-42; 48pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Cancer antigens based on Wilm's tumor suppressor gene WT1 product or peptide derivatives, for cancer vaccines in treating leukemia and solid tumors e.g. stomach cancer, skin cancer, lung cancer and breast cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sugiyama H,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-JUL-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200006602-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wilm's tumour suppressor gene; WT1; cancer; antigen; vaccine; MHC; major histocompatibility complex; leukaemia; tumour; antitumour.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human Wilms' tumour suppressor gene WT1 product SEQ ID NO:2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24-MAY-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Y80197 standard;
                          Y98810 standard; Peptide; 9 AA
                                                                                                                                                                                                                                                   suppressor gene WT1 product.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-195264/17.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   10-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (SUGI/) SUGIYAMA H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 117 psqassgqarmfpnapylpscle 139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local Similarity nes 23; Conserv
                                                                                                                                                                Local Similarity
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                                                                                                                        1 PSQASSGQARMFPNAPYLPSCLE 23
                                                                                                            449 AA;
                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98JP-0218093
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99WO-JP04130
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                                                                                                                                                               100.0%;
                                                                                                                                                   0;
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Pred. No. 4.4e-12;
No. Mismatches 0;
                                                                                                                                                               Score 123; DB 21;
Pred. No. 4.4e-12;
                                                                                                                                                   Mismatches
                                                                                                                                                                              Length 449;
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                                                                                                                                                   Indels
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                                                                                                                                                   Gaps
                                                                                                                                                   0;
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31-JUL-2000 ; e0886A

(first entry)

Y98809 standard; Peptide; 9 AA.

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Query Match
Best Local Similarity
Thes 9; Conserve
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                               Qy
                                                                                                                                                                                     with a carrier/excipient in pharmaceutical compositions or with a non-specific immune response enhancer (e.g. an adjuvant or enhancer preferentially enhancing a T cell response) in vaccines. Pharmaceutical compositions and vaccines can be administered to human patients to enhance or induce an immune response specific for WTI or a cell expressing WTI, useful to inhibit the development of malignant diseases associated with WTI expression, e.g. leukemia (especially acute/chronic myeloid leukemia or acute lymphocytic leukemia) or cancer (especially breast, lung, thyroid or gastrointestinal cancer, or a melanoma). Y98501 to Y98811 represent polypeptide sequences, and Al3848 to Al3862 represent PCR primers, used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                      The present invention describes polypeptides (I) comprising an immunogenic portion of a native Wilm's Tumour gene product polypeptide, WT1, (or variants of the immunogenic portion retaining the ability to react with WT1-specific antisera and/or T-cell lines or clones) and comprising 16 consecutive amino acids (aa) or less of a native WT1 polypeptide. The polypeptides are useful therapeutically and to manufacture medicaments for enhancing/inducing an immune response in patients. The polypeptides, minetics or polymentides can be included that the polypeptides are useful therapeutically and to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel polypeptides comprising an immunogenic portion of a native WTl polypeptide, useful for inhibiting the development of malignant diseases associated with WTl expression e.g. leukemia or cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaiger A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      30-SEP-1998;
25-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-APR-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WT1; immunotherapy;
metastatic disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WT1 related peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 193; 193pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2000-293107/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200018795-A2
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                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CORI-) CORIXA CORP. (GAIG/) GAIGER A.
                                  13 PNAPYLPSC 21
1 pnapylpsc 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cheever M
                                                                                                                                                            9 AA;
                                                                       Conservative
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99US-0276484.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunogenic; malignant disease; cancer; leukaemia;
mouse; human; Wilm's tumour; immune response;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO: 325
                                                                                      44.7%;
100.0%;
                                                                       0;
                                                                                      Score 55;
Pred. No.
                                                                       Mismatches
                                                                                      DB 21; 1
2.1e+05;
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                                                                     Gaps
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Search completed: April 11, 2001, 14:01:57 Job time: 519 sec
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                                                                                                                                                                                                                                                                                    The present invention describes polypeptides (I) comprising an CC immunogenic portion of a native Wilm's Tumour gene product polypeptide, CC WT1, (or variants of the immunogenic portion retaining the ability to CC react with WT1-specific antisera and/or T-cell lines or clones) and CC polypeptide. The polypeptides are useful therapeutically and to CC manufacture medicaments for enhancing/inducing an immune response in CC patients. The polypeptides, mimetics or polynucleotides can be included CC with a carrier/excipient in pharmaceutical compositions or with a CC non-specific immune response enhancer (e.g. an adjuvant or enhancer CC preferentially enhancing a T cell response) in vaccines. Pharmaceutical CC compositions and vaccines can be administered to human patients to CC compositions and vaccines can be administered to human patients to CC enhance or induce an immune response specific for WT1 or a cell CC expressing WT1. useful to inhibit the development of malignant diseases CC myeloid leukemia or acute lymphocytic leukemia (especially acute/chronic CC myeloid teukemia or acute lymphocytic leukemia) or cancer (especially breast, lung, thyroid or gastrointestinal cancer, or a melanoma). Y99501 CC PCR primers, used in the exemplification of the present invention.
                                                                                                                                                                   Matches
                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel polypeptides comprising an immunogenic portion of a native WT1 polypeptide, useful for inhibiting the development of malignant diseases associated with WT1 expression e.g. leukemia or cancer -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Page 193; 193pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaiger A, Cheever M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WT1; immunotherapy; immunogenic; malignant disease; cancer; leukaemia; metastatic disease; mouse; human; Wilm's tumour; immune response;
                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-293107/25.
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25-MAR-1999;
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Mus musculus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (CORI-) CORIXA CORP. (GAIG/) GAIGER A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WT1 related peptide SEQ ID NO:324.
                                                                                                           11 MFPNAPYLP 19
                                                                                      1 mfpnapylp 9
                                                                                                                                                                                                                                                             9 AA;
                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0164223.
99US-0276484.
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                                                                                                                                                               43.1%; Score 53; DB 21; 100.0%; Pred. No. 2.1e+05; tive 0; Mismatches 0;
                                                                                                                                                                 0;
                                                                                                                                                                                                  Length 9;
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                                                                                                                                                                 0;
                                                                                                                                                                 Gaps
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